

1 READYING MICHIGAN TO MAKE GOOD ENERGY DECISIONS

2 Michigan Energy Public Forum

3 Northwestern Michigan College

4 Monday, April 22, 2013
5 1:00 p.m. - 6:00 p.m.

6 NORTHWESTERN MICHIGAN COLLEGE
7 Hagerty Conference Center
8 715 E. Front Street
9 Traverse City, Michigan 49686

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11 Introduction: Steve Bakkal, Director, Michigan Energy Office
12 John Quackenbush, Chairman, Michigan Public
13 Service Commission

14 Presentations: Northern Chamber Alliance - Doug DeYoung,
15 Vice President of Government Relations
16 and Business Development

17 Direct Energy - Jason Wasserman, Director,
18 Midwest Residential

19 Interstate Informed Citizens Coalition -
20 Kevon Martis

21 Crystal Mountain Resort - Jim MacInnes, P.E.,
22 President & CEO

23 Covanta Energy - Michael Cicchetti, Associate
24 Director, Government Relations

25 Michigan Land Use Institute - Hans Voss,
Executive Director

Michigan Biomass - Gary Melow, Director

ACEEE - Marty Kushler, Senior Fellow

Michigan Electric Cooperative Association -
Craig Borr, President and CEO

24 - - -

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Lansing, Michigan

Monday, April 22, 2013

At 1:04 p.m.

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STEVE BAKKAL: Good afternoon, everyone.

Good to be here today. What a beautiful place to have our last forum. I'm Steve Bakkal from the Michigan Energy Office, part of the Michigan Economic Development Corporation. On behalf of the Chairman of the Michigan Public Service Commission, Mr. John Quackenbush, and myself, we'd like to welcome you to our seventh Michigan Energy Public Forum as we continue our process to Ready Michigan to Make Good Energy Decisions.

As many of you here know, Governor Snyder gave his energy and environment address this past November where he discussed the pillars of sound energy policy; that of reliability, affordability, and a protected environment, all built on a foundation of adaptability. And as part of that message, the Governor also talked about 2013 being the year that we engage with the public and our legislators to gather facts and information that are needed to make good energy policy decisions in three specific areas that devise much of our policy today; that of energy efficiency, renewable energy, Electric Choice, or other areas that should be

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1 considered. Which brings us to the reason why we're here
2 today.

3 This past January we launched the input
4 phase of this process. We'll be gathering this input
5 through two primary methods, one of which is through
6 these forums that we've been having, and the other is the
7 website that we've set up at michigan.gov/energy, where
8 we posed a number of questions that we're seeking input
9 and answers on.

10 Now, when you go to the website, you'll
11 notice a number of questions, we actually have over a
12 hundred questions in these three specific topic areas,
13 many of them are very detailed, technical in nature, but
14 generally they all can be summarized by these two
15 questions below: One is what information do energy
16 policymakers need to consider to make good energy
17 decisions? And second, what existing data or studies are
18 available that can be utilized by our policymakers? So
19 what you won't see on the website are any questions that
20 are asking for specific policy recommendations, you'll be
21 seeing questions that are asking what our targets should
22 be in these specific areas that we're looking at, or even
23 if we should have targets in these specific areas. What
24 we're looking for are the underlying studies that are
25 needed to make those determinations by our policymakers.

1 Again, we're utilizing these forums to
2 gather this input; this is our seventh forum, we've had
3 six others throughout the State. The format of the forum
4 today will be similar to the other forums that we've had,
5 we'll have -- today we'll have nine presentations from
6 some of the major stakeholder groups, some of which are
7 from this area, that will present facts and information
8 as they attempt to address the questions that we pose on
9 our website from their viewpoint.

10 The remaining phases of this process will
11 be after -- the website will be open until April 25, and
12 after that, we'll be gathering all this input and
13 information, we'll be compiling a report, making that
14 public in the October-November timeframe, also allow for
15 public input as well. Then we'll be finalizing the
16 report and releasing that in the November-December
17 timeframe, and it's anticipated that Governor Snyder will
18 utilize the report to develop his own policy
19 recommendations at the end of the year that may lead to
20 some legislative action in 2014.

21 All the presentations that you hear
22 today, as well as presentations from previous forums, are
23 available on the website at michigan.gov/energy. A
24 complete transcript of today's forum is also going to be
25 made available, as well as previous forums. We have a

1 court reporter with us today, so I ask all the public
2 speakers, as well as the presenters, to speak clearly so
3 we can capture all that information.

4 At this point, I'd like to introduce the
5 Chairman of the Michigan Public Service Commission who
6 will give us some background on these three specific
7 areas that we're looking to consider. Please join me in
8 welcoming to the Chairman to the podium.

9 JOHN QUACKENBUSH: Well, good afternoon.
10 I'm going to briefly show you a few slides and touch on a
11 few facts and figures that we already do have at the
12 start of this process, but I'm going to try and keep it
13 brief today because we are here primarily to listen to
14 you today, and I know we have a lot of interest out
15 there, so let's get to it.

16 This first chart is about energy
17 efficiency, looking specifically at electric energy
18 efficiency. On the right-hand side, you see the bar
19 charts, that we've raised our targets each year, up to
20 where our goal is to save one percent a year on electric
21 energy savings, and we have that and will plateau at that
22 level, it has plateaued at that level, and will stay
23 there unless there's a change in the legislation. And so
24 one of the things we're seeking information on is, you
25 know, are we interested in doing more, can we do more,

1 what's our capability to do more. And we've been already
2 getting a lot of facts and figures in from a lot of you,
3 we appreciate that, we're looking forward to more as
4 well.

5 The left-hand side of this page focuses
6 on how well have we done versus the target. You can see
7 that our electric utilities in aggregate have exceeded
8 the target in each time period so far. And they've been
9 able to earn some incentives for doing that, and that
10 does indicate that, you know, we have been very
11 successful so far and we've done well with it.

12 The next slide shows the same information
13 about gas, because we have a gas energy efficiency
14 target, too. Same story, we've been ratcheting it up
15 year-by-year, we're now at a .75-percent target level.
16 And again, we've been successful in beating the targets
17 so far.

18 Renewable energy, our second major topic.
19 You can see the bars as you go to the right are
20 increasing. This shows we're adding more renewable
21 energy as we go along. We have a 10-percent target by
22 2015, we expect we'll be able to meet that, it looks like
23 we're doing well, and we are going to be able to, you
24 know, bring that all in to the network successfully, and
25 we'll know more about that as we go on. But things look

1 pretty good, we're on the path. And we also have RECs,
2 bankable RECs that you can see the top line that's kind
3 of faint, it does show that we've successfully been
4 building those up.

5 Third topic I just want to touch on is
6 Choice. There's a lot of numbers here, but the main
7 point here is that there's a strong interest in Electric
8 Choice currently. The top half of the page shows
9 Consumers Energy and some statistics about how much
10 interest there is in Choice. You know, we do have a
11 10-percent cap on Choice, 10 percent of the load can
12 choose an alternative electric supplier. And you can see
13 compared to the 10-percent cap in the Consumers Energy
14 case, about 24 percent of the load is interested in
15 choosing an alternative electric supplier. And for
16 Detroit Edison, the bottom half of the page, if you look
17 in the lower right-hand corner, 21 percent is interested.
18 So there's a significant amount of customers that would
19 like in today's current environment to be Choice
20 customers, but can not be. So we're soliciting comments
21 about that as well, where do we want to go as a State.

22 And just briefly related to the Choice,
23 but kind of cutting across all topics, is just going to
24 show you some rate comparisons. This compares several
25 midwestern states to each other, and you can see

1 Michigan's rate by 2012 comes out on the top end compared
2 to surrounding states. Over the last decade, Michigan
3 has been generally below the national average, and just
4 in the last couple years, the rates in Michigan for
5 electricity have gone slightly above the national
6 average, so we're looking into that and trying to
7 ascertain all the reasons for that. And then when you
8 compare us specifically on this graph to surrounding
9 states, you can see Michigan has generally been priced in
10 the top half of the range, but just in the last couple
11 years has ticked up past Wisconsin to where we have the
12 higher rate. I should mention that this chart is for
13 residential rates.

14 The next chart, same information, but
15 related to industrial rates. Again, the story is pretty
16 similar.

17 So we're looking for all these reasons,
18 where you can see the rates have been trending up, we
19 know some of those reasons, we want to get a complete
20 picture as to why that is, we want to get a complete
21 picture of all the reasons and the relative magnitude of
22 the causes there, as well as compare ourselves to
23 surrounding states as well.

24 So with that, that's a brief snapshot.
25 We're looking forward to learning a lot more.

1 I'll turn it back over to Steve right
2 now.

3 STEVE BAKKAL: All right. At this point,
4 I'd like to just go over the agenda for the rest of the
5 afternoon. Again, we'll be having nine presentations
6 today from some of the major stakeholders that we have
7 that will attempt to address the issues that we posed
8 from their viewpoint. We'll be also taking a short break
9 after that, and then we'll also open it up for public
10 comment. If you are interested to speak, there are
11 comment cards in the front that you need to complete, but
12 I was just informed that we have over 50 requests to
13 speak. Generally we've been able to get through around
14 30 to 40, so I can probably tell you we're not going to
15 be able to get through everyone, and that's with
16 everybody staying within their time. We can stay a
17 little past 5:00 o'clock, we're scheduled to be here
18 until 5:00, but we can stay a little past that to get as
19 many as possible. There is no different weighting given
20 to these comments, you're more than welcome to put these
21 on the website, michigan.gov/energy, there's no weight
22 given, difference from the comments here today versus
23 what's provided on the website.

24 With that, I think we are ready to
25 introduce our first speaker. Our first speaker today is
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1 Doug DeYoung, Vice President of Government Relations and
2 Business Development for the Northern Chamber Alliance.
3 Please join me in welcoming Doug to the stage.

4 DOUG DeYOUNG: Mr. Director,
5 Mr. Chairman, thank you for having me today. I think
6 this is a great opportunity for our communities to be
7 able to come out and speak about energy. I'm going to
8 tell you a little bit about the Northern Chamber
9 Alliance, and I'll keep my remarks brief today so that
10 hopefully we can get to more public comment.

11 But the Northern Michigan Chamber
12 Alliance is an eight-member partnership across what you
13 see there from Alpena, Traverse City, including the Lake
14 Superior Partnership in Marquette; we represent over
15 6,500 businesses across that region as members of our
16 organizations. We were founded on the, basically the
17 premise that our member businesses all face similar
18 issues, both opportunities and issues, across the region.
19 We can provide a message for business across northern
20 Michigan, and we can provide resources of communications
21 back to our members so they know what's going on
22 statewide.

23 When you look at the cost of doing
24 business, the number one thing we hear right now are
25 energy; transportation, production, employee, maintenance

1 and investment are all up there as well, but energy costs
2 are driving some of our businesses to think about
3 location, to think about what they're investing and where
4 they're investing, and we'll talk a little bit about
5 that. You showed some of the kilowatt hours earlier, and
6 that's some of what's driving investment in Michigan
7 right now. When they have competing businesses that
8 they're both at a global and international, global and
9 national level, they're focusing on basically how to be,
10 maintain all those costs, and energy is a top one right
11 now, especially when they have companies that have
12 multiple locations throughout our United States, and when
13 you hear them say, well, in Tennessee I can produce at 6
14 cents a kilowatt hour, and Michigan it's almost 8 cents a
15 kilowatt hour; or here I can produce at 5 cents a
16 kilowatt hour, and in Michigan it's 7.7 or almost 8 cents
17 a kilowatt hour. So that is a determining factor in
18 investment, that is a determining factor in growth.
19 We're hearing that throughout our region.

20 So what are we hearing that the
21 businesses need? Back in 2008, the Traverse City Chamber
22 put together a task force to really focus on needs across
23 our region in terms of energy, where we would stand on
24 issues, and how we would set a platform for energy. In
25 2011 and 2012, the Northern Michigan Chamber Alliance

1 affirmed some of those findings from that 2008 task
2 force. What we heard from businesses; they want
3 reliable, affordable, and they want connectivity. They
4 want to know they're connected to that affordable and
5 reliable energy. They need to know that when they go to
6 work, they can turn the power on, they need to know that
7 it's at the best price, and it's at a competitive price,
8 and they need to know they're connected to the best power
9 that they have for them.

10 What that means is where we stand as a
11 alliance and what we got out of that task force findings
12 were really three top priorities. Number one, energy
13 efficiency. We believe throughout northern Michigan,
14 when you look at the reinvestment that's happening in
15 manufacturing, there are opportunities for those
16 businesses to create more efficient energy use in their
17 buildings. We're seeing that. One of our partners, the
18 Traverse City Area Chamber of Commerce, along with a
19 partnership with Traverse City Light and Power, has put
20 \$150,000 available for energy efficiency loans in our
21 region. We have produced -- we've put together two deals
22 already at \$50,000, and we have a pipeline with about 10
23 companies looking to invest another hundred thousand
24 dollars into becoming more efficient. This is from
25 lighting to HVAC systems to everything that they can do.

1 A lot of the two deals that we did already were
2 reinvestment in old buildings, remodeling, restructuring,
3 and bringing them up to today's energy use needs. So
4 that is a top priority for our Alliance, maintaining an
5 energy efficiency level across the board.

6 When we look at the State producing
7 energy, a diverse statewide energy portfolio is needed.
8 We need the new base load investments that we're hearing
9 rights now across the State, including the reshaping of
10 power plants throughout Michigan, including the Marquette
11 plant, including Consumers Energy natural gas facility
12 that they're talking about building, those are needed
13 base load to be part of our portfolio across the region.

14 We also need a renewable portfolio that
15 is consistent with the need that currently is out there.
16 The 10-percent goal was a good start. As we grow and as
17 our renewable grows, so should that percentage grow, not
18 mandated, but based on the need, based on the, what is
19 available and what can be available moving forward. For
20 instance, Cherryland Electric here in Traverse City is
21 putting together a community solar project; we very much
22 support that project because it's the type of investment
23 that will get people interested in providing new
24 renewable type services for energy in our region. You
25 look at the investment in wind energy throughout the

1 Gratiot County area, again, investment in wind energy
2 that provides into the grid and provides services.

3 The last thing that the Alliance really
4 supports is looking at the generation in our area and
5 connectivity. We are at the end of a peninsula up here,
6 our businesses need to be able to connect to generation
7 and we need generation in our region. When you look at
8 connectivity, I'm talking about when you look at the
9 reinvestment in Marquette coal power plant. Are we
10 connected under the Straits at the proper level to be
11 able to bring that power to northern Michigan? Are we
12 connected through the Chicago grids to bring power into
13 northern Michigan? Are we connected to the new
14 generation facilities that are being discussed to bring
15 power into our region? So it's very important for our
16 businesses to be able to have that power available and
17 connecting to that power.

18 So as you draft a statewide policy, we
19 really believe the current assets and connectivity are a
20 major part of looking at where the future needs to go.
21 How do you address the connectivity? How do you address
22 the assets that we have? What are the future needs of
23 business users? Meeting with businesses and investing
24 time into what their expansion growth is going to be,
25 what their power growth is going to be, the policy should

1 really focus on that percentage. We're seeing
2 reinvestment in Michigan; we need to have power ready to
3 provide for that reinvestment.

4 Siting and management policies really
5 need to be addressed in this State. We need to have a
6 statewide policy that looks at where we site energy,
7 where we manage the process to do that, and how it's
8 sited across our region.

9 And then addressing the cost of energy,
10 that affordable piece, looking at why the rates are where
11 they're at, addressing where the connectivity to those
12 rates can be brought to a different level, and really
13 looking at, as we reinvest in Michigan and reinvent
14 Michigan, where that cost of energy might go, and be
15 prepared to address it before it goes there.

16 And that's all I have.

17 STEVE BAKKAL: Thank you, Doug.

18 Our next speaker is Jason Wasserman,
19 Director of Midwest, for the Midwest Residential for
20 Direct Energy. Please join me in welcoming Jason to the
21 stage.

22 JASON WASSERMAN: So appreciate the
23 opportunity to be here today. As you mentioned, I am
24 Jason Wasserman, I work for Direct Energy, and I'm the
25 Director of our Midwest Residential Business.

1 For those of you who are not familiar
2 with Direct Energy, we provide competitive retail supply
3 and electricity and natural gas to over 2 million
4 customers here in North America, throughout the midwest,
5 the northeast, as well as Texas. I'm happy to say that
6 we've been providing a choice of natural gas supply here
7 in Michigan now for over ten years. We serve currently
8 about 80,000 residential customers, their natural gas
9 supply here in the State of Michigan.

10 So when you think about competition, what
11 does that mean for residents as well as businesses? You
12 know, ultimately it leads to the availability of Choice
13 as it relates to the rate that you pay, which leads to
14 savings and stability over time. But that's really where
15 Choice begins. When you think about how does that evolve
16 over time, it's that ability to provide the consumers
17 with that detailed information that allow them to make
18 better choices about their energy consumption and
19 ultimately using less over time. And some of the things
20 that were touched on here to kick things off were, you
21 know, it's all about efficiency and savings, and talk a
22 little bit about today some of the things we've done at
23 Direct Energy to make those, the savings and ultimately
24 the energy reduction a reality in some of our other
25 territories that we operate in.

1 So again, it all starts with the
2 availability and access to be able to choose your
3 electric supplier or your gas supplier through a
4 competitive market that supports Choice. From there, you
5 know, looking at how do we harness the technology that's
6 available today and deploy it in a way that will allow
7 customers to be able to save on their energy usage, and I
8 won't talk about the automatic meter reading, but what I
9 am going to talk about is how Direct Energy has leveraged
10 the advanced metering infrastructure that's available in
11 other markets that has empowered and enabled residential
12 consumers to be able to shift their load, as well as
13 reduce their load, depending on the different products
14 that we put into place.

15 So when you think about a time-of-use
16 product, what does that mean? Well, from a resident's
17 standpoint, it provides them the opportunity to shift
18 their load from those high peak demand periods when the
19 grid is stressed, when we're facing reliability issues,
20 to times when we are using -- when the grid is not
21 stressed. It also provides the opportunity for customers
22 to be more informed about the energy that they're
23 consuming and reduce their overall consumption. Those
24 retail price signals will ultimately drop efficiency in
25 the market.

1 It also gives consumers an alternative to
2 what I would call sort of the plain vanilla options.
3 When Choice starts in a market, you know, one supplier
4 will offer a rate, another supplier will offer a rate,
5 but it's very plain vanilla, it's a price at a fixed
6 term, and that's great, that's a great starting point for
7 competition; but from there, you know, much like the
8 Model T, you could get one in any color, as long as you
9 wanted it in black. I would like a time-of-use as the
10 pathway to allow consumers to have a more dynamic product
11 that allows them to really control the consumption of the
12 energy that they're using.

13 For Direct Energy, why are we interested
14 in these products? Well, again, our overall supply cost
15 also will be lower, which is good for the grid and good
16 for Direct Energy, and we're able to pass those savings
17 along to consumers as they shift their load and as they
18 use less. It also makes it easier for customers to
19 engage, giving them that data. I think it's one thing
20 when you find that you get your bill after the month's
21 over, you know, that's a very reactive mode, and these
22 time-of-use realtime-enabled products allow us to get
23 into a more proactive energy management. And it's not
24 difficult. I'll talk a little bit about that later on in
25 the presentation.

1 So when you think about what has Direct
2 Energy done so far in the other markets that have not
3 only retail competition, but as well as the deployment of
4 Smart Meters, in the State of Texas and Pennsylvania, we
5 have our Free Power Saturday product, which has also
6 evolved into being Pick Your Own Free Day product, and a
7 number of other variations based on those
8 time-of-use-enabled products. And then in Texas we also
9 have our Power To Go product, which is a prepaid
10 electricity product.

11 Back in the late 2011, in the PPL
12 territory in the State of Pennsylvania where they have
13 not only the ability for residents to choose their
14 electricity supplier, they also have 100-percent
15 deployment of Smart Meters, and combined those elements
16 with innovation of Direct Energy and the people that we
17 have working for our organization, we were able to launch
18 a product that was called the Free Saturday Product, and
19 that product is just as simple as it sounds. Saturdays
20 you don't pay anything for your electricity consumption,
21 and the other six days you pay a fixed cents per rate
22 just as you would with another product. It's very
23 simple, friendly and direct; you don't have to be a math
24 or science major to understand Saturdays, we're free.
25 Both very simple concepts, you're just shifting your load

1 to those particular days. Later in 2012, with similar
2 market dynamics in Texas where we have the availability
3 of competition as well as the 100 percent or very close
4 to deployment of Smart Meters, we're able to launch that
5 product there as well.

6 We have a video, a number of videos and
7 commercials around this product in Pennsylvania. I'm not
8 going to show it to you today just based on the time
9 constraints. But what these do is they follow around
10 Colleen Wassell, who is one of our residents -- or excuse
11 me -- customers in the State of Pennsylvania, and she
12 is -- it's showing her on a Saturday showing her, you
13 know, cooking the meals for the week, doing the family's
14 laundry, you know, bathing the dog, amongst other things,
15 and ultimately, you know, she's using more electricity on
16 Saturdays that's allowing her to be able to save. And so
17 if you want to find this video, you can go to YouTube and
18 you can type in Romo Gets a Bath, not to be confused with
19 Tony Romo, although I think that's why there's so many
20 hits on that video, for anybody who's a football fan, so
21 it has significantly more views than our other videos
22 that are very much the same thing.

23 So when you think about this product, who
24 in this room -- raise your hand if can you define for me
25 what a kilowatt hour is. That's good, we have a number

1 of hands that have gone up, and obviously everybody here
2 is very vested and involved in terms of energy efficiency
3 and savings, and that's everyone in this room, but not
4 everyone can define a kilowatt hour. Well, imagine the
5 average consumer who's not as involved and engaged as you
6 are, that can seem very overwhelming, and clearly lower
7 rates mean better, you know, overall bills at the end of
8 the month. But what is a kilowatt hour? One of the
9 barriers to Choice I would argue is a lack of
10 understanding of just the fundamental unit of which we're
11 selling and providing to consumers, and whether that's a
12 utility or competitive retail supplier.

13 And so I can think of nothing easier
14 than, again, as I mentioned before, Free Power Saturday.
15 Everyone knows when Saturday is, you're free, you know,
16 it's zero. And just shifting your consumption to a
17 Saturday or, you know, our products that allow you to
18 pick your own free day or half-off weekends, free nights,
19 we have a number of iterations of the same product that
20 customers are able to choose that best suit their
21 lifestyle to allow them to manage their energy costs.

22 The result, I'm happy to say, Direct
23 Energy has about 20 percent of their consumers in the PPL
24 territory in Pennsylvania on these time-of-use products,
25 and I'm very happy to announce they've saved about -- or

1 excuse me -- shifted 16 percent of their load from the
2 standard time period to their free day, which helps the
3 grid in terms of de-stressing it, so to speak, as it
4 relates to resource adequacy.

5 So moving along here, we also in Texas
6 have a prepaid product. And when you think back to the
7 wireless industry, ten years ago all of us probably had a
8 cell phone, definitely five years ago, but yet you hear
9 about continued growth in the cell phone industry over
10 the course of the last five years, and that's very much
11 been in the prepaid segment of the business. Right now,
12 with few exceptions, Texas and a couple of others,
13 everyone's paying for their electricity on a post-paid
14 basis; and for most consumers, that is not, you know, a
15 very efficient means of managing their overall
16 electricity costs because it's a reactive mode. You get
17 a bill and then you think, well, what can I do about
18 this? You know, the weather has already spiked, I've
19 already had a party or done all these loads of laundry,
20 and it's a reactive mode, whereas the Power To Go product
21 being prepared providing them realtime data and
22 information allows customers to be proactive.

23 Just kind of skipping through here, this
24 is just a quick view of how this product works, the
25 prepaid card. This is what customers on this product

1 will receive; you know, here's your remaining balance on
2 the prepaid product, how many days that is expected to
3 last you, as well as how much you used in terms of
4 kilowatt hours over the last day and dollars, and that's
5 realtime, and you get that every day. It allows you to
6 make better choices about your energy consumption.

7 And just some quotes here that I won't
8 walk you through as it relates to customers who are very
9 fond of that product.

10 Again, key takeaway on this next slide is
11 just looking at customers on this prepaid product in
12 Texas are using ten percent less electricity than when
13 they, before -- than before when they were on this
14 product. So overall, again, it's great for the grid, and
15 allows them to be more efficient in their energy usage.

16 Just some final thoughts. You know,
17 Smart Meter deployment is the key to making all this
18 happen, along with the ability to choose your retail
19 electric and natural gas supplier. Providing customers
20 with that data allows them to make better choices,
21 allowing them to shift their load, as well as reduce
22 their overall load. And when you think about those big
23 megawatt-hour numbers that were on the page earlier, as
24 well as the cents per kilowatt hour, and you start to do
25 the math on a ten-percent reduction, how many tens of

1 millions of dollars would that mean that consumers can
2 reinvest back in Michigan in a different way rather than
3 paying their electricity bills that they're paying today?

4 And that's all I have. Thank you very
5 much.

6 STEVE BAKKAL: Thank you, Jason.

7 Our next speaker is Kevon Martis from the
8 Interstate Informed Citizens Coalition. Please join me
9 in welcoming Kevon to the stage.

10 KEVON MARTIS: Thank you, Mr. Director
11 and Mr. Commissioner. My name is Kevon Martis, I'm the
12 Director of the Interstate Informed Citizens Coalition.
13 We're a bipartisan renewable energy citizens' watchdog
14 group. The folks in our association range from
15 self-described liberal environmentalists to free-market
16 conservatives. Today I'm going to talk about the issues
17 we see with PA 295.

18 First of all, PA 295 made some bad
19 predictions. The authors predicted natural gas would
20 stay high and would continue to rise, they also predicted
21 that demand for electricity would rise. But here's, as
22 we all know, is what happened. Bad guesses equal bad
23 policy. PA 295's de facto wind mandate rested on two
24 false predictions: 1. Gas would remain expensive,
25 demand would rise. It also assumed cap and trade would

1 be enacted. Yet all three, all three were false; the
2 wind mandate continues.

3 Now let's consider the Michigan
4 Environmental Council's report suggesting that these 9
5 dirty coal plants are generating \$5.4 billion per year in
6 unnecessary health impacts, and causing 660 premature
7 deaths annually in the region. Those were about 5,000
8 megawatts of base load capacity. Let's say we wish to
9 close them. Here's some truth: There are only four
10 practical ways to do that today. If we close them
11 tomorrow, we would have to have 5,000 megawatts of
12 nuclear, or combined-cycle gas turbine, or advanced coal
13 with CCS, or combined-cycle gas turbine plus wind plus
14 transmission.

15 Now you're going to say about, what about
16 wind plus storage? Well, with our at best 30-percent
17 capacity factor, it would require 16,500 megawatts of new
18 wind generation, plus massive pumped hydro, yet still we
19 need a 5,000 megawatt combined-cycle plant for the times
20 when the wind is still not blowing. Levelized cost of
21 this is at least 200 bucks a megawatt hour, and the
22 capital costs would exceed \$70 billion. Now, mind you,
23 5,000 megawatts of combined-cycle gas would cost only \$5
24 billion. But there's serious technical issues why we're
25 not likely to ever see this coming to pass in Michigan.

1 That's why Michigan's wind is absolutely bound to fossil
2 generation.

3 And AWEA board member E.On Energy
4 concurs. E.On is also a wind developer that's working in
5 the midwest. "Wind energy is only able to replace
6 traditional power stations to a limited extent... [due
7 to] their dependence on the prevailing wind conditions...
8 traditional power stations with capacities equal to 90
9 percent of the installed wind power capacity must be
10 permanently online in order to guarantee power supply at
11 all times." This isn't the Colt brothers, this is the
12 AWEA board member E.On Renewable.

13 Thus, there no such thing as wind
14 generation by itself. This has serious policy
15 implications which the authors of PA 295 overlooked. For
16 instance, every year we hear this report about the cost
17 of wind versus coal with carbon capture and
18 sequestration. Listen to Dr. Joskow from MIT who
19 believes in global warming, he's a very well respected
20 economist. He says: "... the usefulness of simple
21 levelized cost 'rule of thumb' comparisons breaks down
22 when the generating technologies being considered have
23 different dispatch capabilities... [thus] the production
24 profiles for intermittent and dispatchable generation and
25 the value of the electricity they produce are likely to

1 be very different, making comparisons based on levelized
2 cost alone meaningless." In other words, levelized cost
3 does not apply any number to the value of the energy and
4 the time of delivery.

5 But there's a second issue. If we want
6 to make an accurate levelized cost of energy number for
7 wind, we have to include a percentage the fossil fuel
8 that's necessary. It has to be attached to a primary
9 fossil source which will in fact furnish the bulk of the
10 energy from the wind/fossil pair. When the cost that
11 wind imposes on those primary fossil sources, among
12 others, are included, we now see wind that's using coal
13 as de facto storage, which is in fact how it would work,
14 comes in at 190 to 194 bucks a megawatt hour. Adding
15 that to gas would bring it in between 149 and 153, which
16 means both are far more expensive than advanced coal with
17 carbon capture and sequestration.

18 There's another issue: Price versus
19 value. Fixed-price Power Purchase Agreement versus MISO,
20 the grid operator. The true value of any commodity is
21 determined by what someone is willing to pay for it at a
22 given time and place, which levelized cost numbers
23 ignore. Over the last year, the average value of
24 electricity to MISO has generally ranged from \$20 to \$75
25 a megawatt hour, depending on demand. The problem:

1 Michigan Winds Power Purchase Agreements are averaging
2 \$80 a megawatt hour. That makes it expensive even at
3 peak MISO pricing of 75 to 80 bucks.

4 Furthermore, we see that wind generation
5 in the midwest is inverse to demand in general terms in
6 PJM and MISO; thus, \$67 to \$108 Michigan fixed-price wind
7 is most abundant when the market is only offering 20
8 bucks.

9 Further, what we're seeing in MISO is as
10 the percentage of wind generation increases, we're seeing
11 more negative pricing events, where the market is giving
12 them a negative signal which says, stop, we don't need
13 any more. In MISO-Iowa where there's a ton of wind,
14 below grid price, below zero grid pricing occurred five
15 percent of the time while wind was continuing to flow in
16 at fixed Power Purchase Agreement prices.

17 Perverse results: The bulk of our wind
18 is being sold when the value of that wind is only 20 to
19 40 bucks, or sometimes even below zero. The results,
20 particularly of those who are hoping for storage to
21 become incentivized, is at first high penetrations of
22 wind will continue to drive up the cost of electricity;
23 but secondly, when there is no time-of-delivery penalty,
24 there is no incentive to develop practical storage. Why
25 would you store it if you can dump it at night and they

1 have to take it?

2 Worldwide we see that big wind energy
3 mandates increase -- result in high-priced energy. The
4 U.S. and Michigan are clustered down in the lower end
5 around 12 to 14 cents, we see Germany at 9-percent wind
6 is 34 cents, and Denmark at 24-percent wind is 36 cents.
7 Either of those last two prices in Michigan would bring
8 about economic collapse of our industry.

9 We know this: The Steel Manufacturers
10 Association published a report last year that says they
11 use \$18 billion worth of electricity per year. A
12 10-percent increase in cost divided over their 100,000
13 employees would mean that there's \$18,000 a year per
14 union employee no longer available on the table for wages
15 and benefits from just a simple 10-percent increase in
16 the cost of electricity.

17 My alma mater, University of Michigan,
18 spends \$61 million a year on electricity, a 10-percent
19 increase in electricity to them is a \$214 per year
20 tuition increase, or they could fire 143 teaching
21 assistants, it's up to them.

22 You see, energy is overhead. Increased
23 electricity costs prevent more people from having
24 affordable education, affordable medical care, affordable
25 home utility bills, social justice, high-wage jobs and

1 union benefits, and affordable goods and services of all
2 types.

3 What about external costs? Toledo is
4 only a few miles from my house; I live in Michigan. The
5 external impacts of coal generation are obvious in 1912.
6 Here's 2012.

7 Policy question: We need to answer how
8 clean is clean enough. If we decided that what we see
9 with our own eyes in our cities is not yet clean enough,
10 then we've got to look at the cost of avoiding these
11 additional coal emissions. What we understand right now
12 is that CO2 reduction by replacing coal with
13 combined-cycle gas turbine is 60 percent per megawatt
14 hour, and all the mercury and essentially all the fine
15 particulates, which are the subject of the Environmental
16 Council's health impact report, are gone. Nuclear will
17 take care of all it, and adding wind to combined-cycle,
18 our other practical option, will only add additional
19 10-percent reduction in CO2, but almost add a 50-percent
20 increase in the levelized cost of energy from the gas in
21 isolation. The worst of all is that by adding wind to
22 our current generation portfolio, which is what we are
23 doing, we do not know how much CO2 has been avoided in
24 Michigan; we do not know how much, if any, mercury has
25 been avoided; we do not know how many fine particulates

1 have been avoided in Michigan; and we do not know the
2 levelized cost as a result of that.

3 If natural gas goes to 15 bucks, then
4 nuclear is now the cheapest across the board. Under
5 neither scenario is adding wind to our current generation
6 portfolio the most cost-effective means to reduce the
7 emissions we're concerned about.

8 Here's my question: MEC and their
9 affiliates talk about these 660 lives and this \$5.4
10 billion per year.

11 We know that gas and nuclear can
12 eliminate those emissions completely. Adding wind to our
13 current generation can not.

14 If the health -- Yet MEC and its
15 affiliates oppose gas and nuclear at every turn.

16 If the health impacts were as profound as
17 they claim, yet they obstruct the only two proven cures,
18 at what point does MEC become culpable for those
19 healthcare impacts?

20 What about Iowa? 24-percent wind. Did
21 you know Iowa's wind mandate is only 105 megawatts?
22 That's only a half-percent RPS, yet they built a ton of
23 wind, and this is why: Because they can. The purple is
24 wind resources we don't have in Michigan. They're at a
25 2-to-1 price advantage on a per kilowatt-hour basis

1 because they have twice as much energy available to each
2 and every turbine location. And even as they increase
3 their level of wind generation, almost all of that's
4 being sold out of state and the CO2 emissions continue to
5 rise in Iowa despite now in excess of 20-percent wind.

6 Further, wind is almost fully dependent
7 upon federal tax breaks, unlike all other forms of
8 generation, and installed costs continue to rise.

9 The federal PTC is roughly equal to the
10 wholesale price of energy; we're at risk, as when that
11 PTC goes away, our price will go up. We're already a
12 high-cost wind producer in the region, there is no
13 regional advantage to wind.

14 Percentage generation mandates require
15 omniscience. We do not have omniscient people. Time to
16 stop the wind mandate.

17 Second: We must immediately abandon the
18 bogus cost comparison between coal and wind. It's
19 nonsense.

20 Third: Lower energy costs bring about
21 social justice, more jobs; it has to be a primary driver.

22 Fourth: If externalities are a driver,
23 then; (a) decide how clean is clean enough; and (b)
24 require empirical measurements to establish real cost per
25 unit avoided and then let economics, not ideology,

1 decide.

2 If we unwisely continue renewable energy
3 mandates, MPSC should protect ratepayers by fostering
4 competition. Therefore, we must open Michigan borders to
5 always cheaper Iowa or prairie states' wind, and qualify
6 combined-cycle and nuclear as renewable.

7 Consider one township covered with
8 turbines like this, 36 square miles, this is the
9 Shineldecker home in Mason County, can be replaced by
10 this simple-cycle gas turbine that fits inside your
11 average dairy barn.

12 Bottom line: If wind energy is unable to
13 cost effectively reduce the external cost of our current
14 generation portfolio or deliver cheaper electricity, why
15 should anyone have to live like this?

16 STEVE BAKKAL: Thank you, Kevon.

17 Our next presenter is Jim MacInnes,
18 President and CEO of Crystal Mountain Resort. Please
19 join me in welcoming Jim to the stage.

20 JIM MacINNES: Well, thank you, Director
21 Bakkal and Chairman Quackenbush. I appreciate being able
22 to present today.

23 In the interest of time, I'm just going
24 to kind of hit the highlights of my presentation, but I
25 understand it will be put up on the web, so you'll be

1 able to see it in more detail if you like. I'm going to
2 talk about developing a plan to accelerate plug-in
3 electric vehicle deployment in Michigan, a little bit
4 different than some of the topics we've heard earlier.

5 Some background at Crystal Mountain: We
6 have about 350,000 drive-to customer visits each year; we
7 have 500 employees in the summer; we have 600 in the
8 winter; we spend about \$1.3 million each year in direct
9 energy consumption; we spend way over \$5 million a year
10 in purchasing operating supplies; and our average annual
11 capital purchases for upgrades and things like that is
12 about \$2.2 million a year.

13 So when I looked at our energy-related
14 business risks, I decided to put them into two different
15 categories; one would be direct, and that would be the
16 cost of our direct electricity and liquid fuel costs; the
17 other would be indirect, and those would include
18 increasing petroleum prices that flow through from
19 suppliers and increase the cost of our capital purchase
20 and operating supplies. Since we buy so much, it impacts
21 our cost of doing business. Also, since we have 350,000
22 guests coming to us from all over the midwest, we're
23 concerned about their energy cost increase, primarily the
24 motor gasoline, and that reduces disposable income for
25 discretionary purchases, such as a resort vacation. And

1 then being in the snow business, we're also quite
2 concerned about climate change.

3 Here are a couple of thoughts about
4 energy and the economy. In order to manufacture
5 something or transport people and freight, we must
6 consume energy, and energy consumed doing work causes
7 economic growth, not the converse, so thermodynamics is
8 something really important to think about when you're
9 thinking about economic growth.

10 So in Michigan here, we have a very high
11 dependency on liquid fuels. 93 percent of all U.S.
12 transportation fuel is petroleum based; 34 percent of the
13 energy used in U.S. manufacturing is also petroleum
14 based; and 72 percent of the price of transportation fuel
15 is based on a world oil crisis. And there's kind of a
16 complicated diagram here called a Sankey diagram, which
17 shows the sources of energy on the left and the uses on
18 the right. And you can see how much, for transportation,
19 which we use for everything, how much of petroleum we
20 use, and even a third of it goes for industrial process,
21 so it's very key in our economy.

22 So let's look at the U.S. oil
23 consumption. This is a chart based on the British
24 Petroleum 2012 statistical review. The black line shows
25 that consumption of U.S., of oil in the U.S., nearly 19

1 million barrels a day, you can see our production, and
2 you can see we import a considerable amount of oil.

3 Let's look at world oil statistics. If
4 you look at the BP statistical review, you can see that
5 world oil production has been on an undulating plateau
6 for about seven years, and we also know that world oil
7 prices are based on the cost to develop a marginal
8 barrel. And since we've already taken the low hanging
9 fruit, each marginal barrel becomes more and more
10 expensive.

11 So the third bullet down is something
12 really important. Rapid growth of transportation needs
13 in emerging economies has been exerting an upward
14 pressure on world oil demand and prices.

15 So at the bottom there you can see, based
16 on data from the U.S. Energy Information Administration,
17 U.S. oil demand is now the lowest in 16 years. And yes,
18 some of that is due to conservation and more efficient
19 vehicles, but most of it is due to the fact that we're
20 being priced out of being able to buy oil on the world
21 markets.

22 So this is kind of an interesting chart.
23 These are three emerging economies, India, China and
24 Indonesia, and look at how high that, look at the rate
25 that they are consuming oil. That's an exponential

1 growth rate. Now, this represents 40 percent of the
2 world's population, and they also currently consume about
3 85 percent of the total U.S. oil that we consume today.
4 And look at how much they're importing. And if you
5 figure we've got a flat world production and they're
6 consuming all this, you know, where's the oil coming
7 from? Well, this chart shows on the top line here that
8 basically they've been growing their consumption; on the
9 bottom line, the U.S. and the other 33 OECD countries
10 have been actually using less and less oil. So in
11 effect, we're being squeezed out of the oil markets,
12 which is kind of unfortunate.

13 So basically what happens is, if you look
14 at the second to the last bullet down, the U.S. maximum
15 carrying capacity for the price of Brent crude is \$95 a
16 barrel, which means that we're not going to increase our
17 oil consumption, which of course is part of growing the
18 economy, we're not going to be able to increase that
19 until the price of oil gets down to \$95, and it's
20 currently about \$101 a barrel today; while at the same
21 time, China, Indonesia and these other countries, they
22 can continue to burn oil because of this curve here.
23 This is a total utility-of-wealth curve, it shows wealth
24 on the horizontal, utility on the vertical side. So if
25 you think about the developed countries, we're kind of in

1 the flat part of the curve. So if you think of wealth
2 being an incremental barrel of oil out on that flat part
3 of the curve, you burn an incremental barrel, you get a
4 small benefit; but for the growing economies that are
5 much smaller than us, they're on the left-hand side and
6 kind of the curve part there, so an incremental barrel of
7 oil that they consume will get them a lot more benefit.
8 So that's why they can afford to grow, despite the fact
9 that oil prices are high.

10 So Michigan liquid fuel consumption, it
11 represents about 33 percent of Michigan's total energy
12 expenditures, while retail electricity is only about 29
13 percent, so this is really the big elephant in the room
14 here as far as I'm concerned. And we spend about \$16
15 billion a year buying motor fuels, and we import about 97
16 percent of our petroleum needs, according to LARA.

17 So we've also got another problem here,
18 and that's climate change, the impacts of burning oil and
19 other fossil fuels, which is a real, real problem. As
20 you can see down partway here, we're going to be looking
21 at an increase of four to six degrees Fahrenheit in the
22 temperature in the midwest, not very good for my ski
23 slopes I might add; and at the bottom there, it's pretty
24 well established, I'd say it's unequivocal, that
25 anthropogenic sources are increasing radiative forcing.

1 And I've got some real good references in here if you
2 want to take a look. There's a chart from the IPCC. So
3 that's a very big concern of ours in the ski business.

4 So what do we do? We reduce our
5 dependence on oil while transforming transportation, and
6 we can do this through electrification, and vehicle
7 electrification would help to inoculate Michigan
8 businesses and residents from world oil price increases
9 and energy insecurity. So also electrification can
10 reduce greenhouse gas emissions, and it's one of the few
11 transportations options capable of directly using
12 renewable generation. And also we know that a number of
13 the large Michigan companies are, they're already rolling
14 out plug-in electric vehicles. As an example, a Chevy
15 Volt can go 30 miles using 60 cents worth of electricity
16 based on Consumers Energy's off-peak electricity rate.

17 So here's a chart that shows if you have,
18 at the bottom there, if you have a conventional
19 gas-powered vehicle that gets 27 miles per gallon, look
20 at how much oil you use. And if you simply switch to a
21 hybrid which gets 50 miles per gallon, you can
22 significantly reduce the amount oil use and dependence on
23 world oil supply and prices. And if you can switch to an
24 electric vehicle, it eliminates just about all the oil
25 consumption.

1 So what I'd suggest is that we develop a
2 plan to accelerate plug-in vehicle deployment in
3 Michigan. And I've offered a few examples, a few
4 suggestions, but I think having some type of a task force
5 to look at this would be a really good idea.

6 A few examples: Plan for and integrate
7 peak vehicle demand and electricity into the power grid.
8 Provide electric vehicle users with options to connect
9 PEV charging with renewable energy supplies. Expand the
10 use of PEV's for light- and medium-duty commercial
11 fleets. Support demonstration and commercialization of
12 PEV-related technologies by Michigan companies. And then
13 second to the bottom, encourage utilities to provide a
14 cleaner and less fossil-fuel-dependent electric power
15 supply by significantly increasing the mix of renewable
16 energy, including low-cost clean energy imported via the
17 11-state MISO power grid. And in this issue here, the
18 grid is the secret sauce into incorporating renewable
19 energy. Please remember that. And then finally,
20 researching PEV deployment policies of other states, such
21 as California and Maryland and others.

22 So given all the pressure on world oil
23 prices and the amount of time it's going to take ramp up
24 renewables and electric vehicles, time is the natural
25 resource in shortest supply. Thank you.

1 STEVE BAKKAL: Thank you, Jim.

2 Our next presenter is Michael Cicchetti,
3 Associate Director of Government Relations for Covanta
4 Energy. Please join me in welcoming Michael to the
5 stage.

6 MICHAEL CICHETTI: Thank you, Chairman
7 Quackenbush, Director Bakkal, everyone, thank you for the
8 opportunity to present, make this presentation. My name
9 is Michael Cicchetti, I'm Associate Director for
10 Government Relations at Covanta Energy.

11 Covanta Energy is a world leader in
12 energy from waste; we have over 44 plants around the
13 world, including 40 here in the United States, and we
14 have one plant in Michigan down in Kent County where we
15 operate the energy-from-waste facility for the county.

16 You all know why we're here; talking
17 about the Governor's special message. I want to focus
18 particularly on the RPS, but also talk a little bit about
19 recycling and explain how the RPS and recycling are
20 related.

21 Michigan RPS, energy from waste is capped
22 in the Michigan RPS; so in other words, the three
23 existing plants that are in Michigan qualify as renewable
24 and are allowed to participate in the RPS, but no new
25 plants and no expansions would be allowed, whereas

1 landfill gas capture systems, there's no cap, so any new
2 landfill gas capture systems would be allowed to
3 participate in the RPS.

4 So what is energy from waste? It's a
5 specially designed process that produces electricity from
6 household waste. This is a schematic of a typical plant.
7 Starting on the left we have our tip floor where the
8 garbage is brought in, it's put into a combustion
9 chamber, they're combusted and it creates heat. The heat
10 is captured and used to make steam, the steam is used to
11 spin a turbine and generate electricity. Everything on
12 the right half of there is all pollution control and
13 metal recapture. Through our process, we can capture the
14 metals that would otherwise be lost in landfills forever.

15 And the alternative to energy from waste
16 is this, is more landfills, which we like to say are for
17 the birds (literally).

18 Landfills are one of the largest sources
19 of manmade methane, a very potent greenhouse gas. But
20 there's also fugitive uncontrolled emissions of over 170
21 air pollutants, including 44 of which are air toxins, 4
22 known and 13 probable carcinogens. In addition, there's
23 significant risk of ground water contamination from
24 landfill leachate. It forever renders useless large
25 tracts of land. 15 of the 86 U.S. EPA National

1 Priorities List sites are Michigan landfills, and as I
2 mentioned, the metals are lost forever. In 2012 alone,
3 over 370,000 tons of metal were lost in Michigan
4 landfills forever.

5 Michigan is dependent on landfills;
6 there's over 70 active landfills in the State. In 2012,
7 almost 15 million tons of garbage was put into Michigan
8 landfills, over 3 million of which came from out of
9 state. Michigan is the third largest importer of waste
10 amongst the 50 states, and most of that from Canada.

11 And just as a frame of comparison, if 25
12 percent of that 50 million tons were brought to an
13 energy-from-waste facility versus a landfill, you could
14 generate 373 megawatts of reliable base load renewable
15 energy that would be generated right here in Michigan,
16 you'd have 6,600 construction jobs, and 880 full-time
17 permanent jobs, and you'd have the ability to recycle
18 over 92,000 tons of ferrous metals. Just Covanta alone
19 through our 40 plants in the United States in 2012, we
20 recycled enough metal that would otherwise have been lost
21 forever to build 8 Golden Gate bridges.

22 Energy from waste is the superior
23 alternative to landfills. Even with a landfill gas
24 capture system, we can generate 9 to 14 times more
25 electricity than landfill gas, we use more jobs. From an

1 economic development perspective, there are companies
2 looking to be "sustainable", it's a key part of their
3 marketing now, and they're moving towards zero landfill.
4 GM in fact has certified its hundredth plant as a zero
5 landfill plant. It reduces the volume of the waste by 90
6 percent, it can recover metals, it also can reuse
7 low-grade water either from landfill leachate or from
8 waste water treatment facilities to use in the process,
9 so you can reuse that water as opposed to having to
10 dispose of it elsewhere; it's a much more efficient use
11 of land, which I'll show in a minute; and it processes
12 the waste in about an hour versus at least a hundred
13 years in a landfill.

14 And this is just a side-by-side
15 comparison. From a ton of waste, we can produce 550
16 kilowatts versus 65. We have significant and very highly
17 advanced air pollution control systems and are highly
18 regulated. There is no pollution control at landfills,
19 and they're very minimally regulated. We can recover 50
20 pounds of steel from every ton of garbage we process as
21 opposed to zero from the landfill. And time
22 implications, we can do that in an hour versus over a
23 hundred years at a landfill.

24 From a land-use perspective, we can
25 generate a megawatt of electricity from less than an acre

1 of land, and that's compared to 27 acres that would be
2 needed to produce that same megawatt of power from
3 landfill. We can obviously generate that less, with less
4 land requirement than either solar or wind as well.

5 From a global warming perspective, energy
6 from waste is recognized by the IPCC as a key greenhouse
7 gas mitigation technology. We reduce the greenhouse gas
8 emissions primarily from the avoidance of methane; there
9 are no methane emission from our process. And in fact,
10 for every ton of waste that we process versus going to a
11 landfill, we can actually reduce greenhouse gas emissions
12 about a ton. So we're actually the only source of
13 electricity that reduces greenhouse gas emissions.

14 We can also reduce dependence on fossil
15 fuels. For every ton of waste we process, we can offset
16 a quarter of coal or a barrel of oil.

17 This demonstrates what the carbon dioxide
18 reductions that the European Union has been able to
19 achieve just by moving away from landfills and toward
20 more recycling and more energy from waste, and that's
21 just in the municipal waste side.

22 The world scientific community advocates
23 more energy from waste and less landfilling, including
24 our own U.S. EPA. And internationally, energy from waste
25 is becoming more, there's more and more use of it. In

1 Europe, they're building new plants; Ireland now has
2 several plants under construction; United Kingdom is
3 constructing these plants because of the directive that
4 European Union established to get rid of landfilling. In
5 China, which has very few of these plants right now,
6 there's actually about 300 or so of these plants under
7 construction right now, because even China is going to be
8 moving away from landfilling.

9 In terms of why you need to have energy
10 from waste in the RPS, from a federal perspective, every
11 source of electricity -- I know this is hard to read --
12 but every source of electricity gets some sort of federal
13 subsidy, except energy from waste. So even though we
14 actually serve two functions, getting rid of waste and
15 producing renewable electricity, every other source is
16 subsidized to a greater degree, including coal, including
17 natural gas, including oil, and certainly the other
18 renewables like wind and solar.

19 So how are the RPS and recycling related?
20 Well, increasing your use of energy from waste has been
21 demonstrated to -- I'm sorry. Increasing your use of
22 energy from waste, which is the blue line on that chart,
23 and reducing your use of landfills, which is the red
24 line, has demonstrated that recycling rates can go up
25 dramatically. This has been demonstrated in Europe as

1 they moved away from landfilling and toward energy from
2 waste, the recycling rate has gone up. In the United
3 States, there was a study done that showed that
4 communities that use energy from waste versus landfilling
5 have a higher recycling rate than those that do not. And
6 just for a comparison, Michigan's recycling rate is 20
7 percent, compared to the national average of about 34
8 percent.

9 In terms of energy savings, recycling
10 means you can save energy because you're not having to
11 produce those materials from pulling them out of the
12 ground out of raw materials. But using -- so this shows
13 as you increase your recycling rate, the savings in
14 energy. Now, the top line shows doing that, increasing
15 your recycling rate, but still using landfill as a
16 primary source of disposal, you can still save some
17 energy; however, the bottom line shows that using,
18 increasing recycling in combination with energy from
19 waste, you can save significant amounts of energy.

20 From an economic development perspective,
21 a new plant typically creates about a billion dollars in
22 economic activity, just about 3 years of construction,
23 825 direct and indirect jobs. In terms of an operational
24 perspective, there's a minimum of 25 years of operation,
25 usually a lot longer, and about 110 full-time direct and

1 indirect jobs to operate the plant, and as well as
2 significant benefits to local communities, as well as
3 state tax revenue.

4 As I mentioned earlier, from an economic
5 development standpoint, companies are looking to go to
6 zero landfill. The question is, how are they going to
7 have those options here in Michigan?

8 Also, you can not run a manufacturing
9 economy on intermittent power. Energy from waste is
10 reliable, you've got a higher capacity factor than even
11 coal and natural gas.

12 So as we look to make good energy
13 decisions, we need to look at increasing the RPS in a
14 responsible manner, but more importantly, remove the
15 barriers and limits on all renewables. Don't exclude
16 certain technologies from RPS.

17 As I mentioned, you can not run a
18 manufacturing economy on intermittent jobs. The private
19 sector wants reliable renewable energy options. Can
20 Michigan deliver? They also want zero landfill options.
21 Again, can Michigan deliver? And local governments want
22 choices in terms of their solid waste disposal options.

23 And there's some additional resources. I
24 know the Director and the Chairman are looking for
25 additional resources, so we will be submitting those

1 through the website, and these talk about a lot of the
2 issues that I just raised. So thank you very much.

3 STEVE BAKKAL: Thank you, Michael.

4 Our next presenter is Hans Voss,
5 Executive Director for the Michigan Land Use Institute.
6 Please join me in welcoming Hans.

7 HANS VOSS: Thank you, Director Bakkal,
8 Commissioner Quackenbush. Welcome to Traverse City.
9 Happy Earth Day. My name is Hans Voss, I'm the Executive
10 Director of a nonprofit group here in Traverse City
11 called the Michigan Land Use Institute. We're actually
12 18 years old today, our founding day was Earth Day 1995.

13 We're an advocacy organization seeking to
14 protect the environment and strengthen the economy. We
15 do programs around the region around local food and
16 farming, transportation options, building thriving
17 communities, and advocating for clean energy. We're also
18 policy advocates at the State level, and we're strong
19 supporters of the 25-by-25 renewable energy standard.

20 There's a lot of interest in energy here
21 in this region around clean energy. I was happy to see
22 Doug DeYoung point out a couple examples from our local
23 utilities, initiating a new community solar program, the
24 Chamber's energy efficiency financing initiatives, and
25 many other local initiatives to save energy and produce

1 clean energy.

2 One of the great examples of dialogue in
3 our region is the Grand Vision, which is an active
4 participatory citizen planning initiative looking forward
5 50 years to the community we want to be, and just
6 recently the Grand Vision did some surveying on the
7 public's perspectives and thoughts on energy, and all
8 this is on the Grand Vision website for those of you who
9 want to check out the full survey. But very
10 interestingly, 68 percent of residents in the 6-county
11 northwest Michigan region are very likely to support
12 energy efficiency, which is the green bar there. Also
13 high on the support list were solar farms; coming in
14 close behind that were support for home generation,
15 onshore wind, offshore wind, and natural gas; not as much
16 support for coal, biomass and nuclear. 63 percent of
17 those respondents, both the red and the green, showed
18 that they were either very or somewhat interested in
19 environmental considerations being taken into account
20 when making energy decisions.

21 But what I thought was particularly
22 interesting about this survey was some very specific
23 questions were asked about how much the public is willing
24 to pay for clean energy. 60 percent said they are
25 willing to pay more for renewable energy; 89 percent said

1 that they would pay at least \$5 more each month for clean
2 energy; 3/4 would pay \$10 more per month for clean
3 energy; and 40 percent would pay \$15. So not only are
4 residents of this region checking the box saying yes,
5 renewable energy is great, energy efficiency is great,
6 they're actually specifically responding that they would
7 pay more to achieve those goals.

8 Another great example from our community
9 here in Traverse City is TCSaves; it's a collaborative
10 energy efficiency initiative between the City of Traverse
11 City, Traverse City Light & Power, the Michigan Land Use
12 Institute, SEEDS, another local nonprofit, Michigan
13 Saves, and a network of wonderful contractors in the
14 retrofit weatherization business. TCSaves in under two
15 years has weatherized 550 homes in Traverse City, which
16 is a pretty startling 20 percent of Traverse City's
17 owner-occupied houses. This is one of them, this is the
18 Kushman family, along with a special guest last summer,
19 Governor Rick Snyder. This is a story that was common
20 amongst the many homes participating in TCSaves in which
21 the Kushmans brought in certified local contractors with
22 financing from TCSaves to weatherize and insulate their
23 drafty 115 year old home and utilize significant utility
24 efficiency rebates. Today their home is much more
25 comfortable, and comfort is important when initiating and

1 evaluating energy efficiency programs, and they have cut
2 their natural gas use by one-third.

3 Michigan Saves is an important partner in
4 this collaborative project, which works statewide on
5 similar programs and has financed work on 10,000 Michigan
6 homes and 15 million square feet of commercial space,
7 creating thousands of jobs, and on average in each one of
8 those participating businesses and residences, cut energy
9 use by 15 percent.

10 Governor Snyder was just thrilled about
11 his visit here, by the way.

12 So the Michigan Land Use Institute looked
13 at what could we do if we expanded this kind of
14 efficiency program at a broader level. We did an
15 evaluation of Grand Traverse County, we looked at weather
16 data, energy prices, building inventory, and worked
17 closely with the American Council for an Energy Efficient
18 Economy -- our next speaker will speak from them -- on
19 modeling software to produce a report -- that's the
20 cover, it's available on our website -- and looked at
21 Grand Traverse County and an investment of \$268 million
22 and how that investment could cut energy use in all
23 residential buildings and half the commercial and public
24 buildings by 25 percent, which would employ 76 people on
25 average each year for the course of 15 years. In a

1 county with 86,000 people and a 9.1-percent unemployment
2 rate, we thought those were pretty significant job
3 numbers, although partners in the region and across the
4 State have said they were conservative.

5 The interesting and powerful thing is,
6 such a program like that, which is entirely within reach
7 of achieving, would save \$212 million of the people's
8 energy bills. So you'd pay back the \$268 million of
9 financing over 30 years, and save \$212 million in reduced
10 energy costs for those participating homeowners.

11 So the Michigan Public Service Commission
12 knows this, many of you guys know this: Studies have
13 been put forward, a most recent one shows that every
14 dollar invested in energy efficiency saves \$3.55 in
15 consumer bills on their utility prices. We believe that
16 expanding that program in Michigan across the State,
17 utilizing examples such as TCSaves, has great potential
18 both to pay for itself, put thousands of skilled workers
19 back on the job, save billions of dollars in energy
20 costs, and simultaneously result in cleaner air and less
21 air emissions.

22 One of the questions on the website from
23 the Public Service Commission in initiating this process
24 was: How much energy efficiency opportunity will there
25 be left at the end of 2015? So after all the efficiency

1 work that's been done in Michigan, what's going to be
2 left to achieve after 2015? And we wanted to address
3 that specifically in this forum, and we thought the most
4 explicit way of addressing that question was to look at
5 two examples from other states.

6 One was California, where they invested
7 almost 40 years ago in a very aggressive energy
8 efficiency initiative, they set specific goals, tightened
9 building codes, weatherized low-income houses, decoupled
10 gas and electric rates, and provided utilities with
11 bonuses for hitting efficiency goals. So what's
12 happening now as a result of that is that the typical
13 Californian uses about half the electricity of the
14 typical American. It's been extraordinarily successful.
15 And that means California businesses get about 50 percent
16 more productivity out of their electricity use than it
17 did in 1980, while the rest of the nation has only made a
18 15-percent increase in efficiency. And very importantly
19 to the question at hand is, after all of that work in
20 California, 40 years of aggressive efficiency, they are
21 still gaining energy efficiency measures at less than 3
22 percent per kilowatt hour, which is generally accepted as
23 the standard across the country; so after all that,
24 they're still looking at a very efficient investment in
25 additional energy efficiency.

1 (Inaudible public comment.)

2 HANS VOSS: I missed that point.

3 But just a last case study, and then a
4 couple recommendations. One is from Vermont. Vermont
5 has a different approach to energy efficiency; it
6 receives pass-through customer efficiency fees from
7 utilities and invests them in residential and commercial
8 financing, customer rebates, utility incentives, and very
9 importantly, public education. In its first 10 years,
10 Vermont cut total electricity use by 14 percent, which is
11 an average of 1.4 percent a year. You may have recalled
12 from the previous presentation, Michigan's standard is
13 currently one percent. But after ten years of another
14 aggressive initiative around efficiency, they are now
15 cutting demand by two percent a year. So again, after
16 investments are made, additional opportunities are
17 created, and there are still many more low-hanging fruit
18 here in Michigan, as shown by other states. We can do
19 better here in Michigan than one percent.

20 We believe that we are in a great
21 position to build our economy around clean energy and
22 efficient energy. We have four very specific
23 recommendations for the Public Service Commission to
24 consider.

25 One is to decouple all gas and electric

1 utilities and gradually increase their energy
2 optimization standards to two percent per year.

3 Secondly, expand funding and policy
4 support for the nonprofit Michigan Saves and the Michigan
5 Energy Office, allowing them to lead the charge to make
6 our State America's most efficient.

7 Third, make deep efficiency retrofits on
8 every public building in Michigan, saving hundreds of
9 millions of taxpayer dollars.

10 And fourth, incentivize a local
11 government approach to clean energy called Property
12 Assessed Clean Energy, or PACE, to advance this at the
13 local level.

14 I sure appreciate the opportunity.
15 Thanks for coming up. We believe that this is a major
16 moment in Michigan, a major opportunity for our community
17 to have input into your policymaking. We believe that
18 Michigan is standing at the crossroads of a great
19 opportunity to become a leader in clean energy, to
20 strengthen our economy, to protect our environment, and
21 help provide jobs for Michigan people. We are thrilled
22 and honored to have the chance to make these
23 presentations, and I'm personally grateful. Thank you
24 very much.

25 STEVE BAKKAL: Thank you, Hans.

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1 Our next presenter is Gary Melow,
2 Director for Michigan Biomass. Please join me in
3 welcoming Gary to the stage.

4 GARY MELOW: Well, thank you, Chairman
5 Quackenbush and Director Bakkal, for this opportunity to
6 talk to you and everybody here today about biomass power.

7 Michigan Biomass represents the State's
8 grid-connected, wood-fired power facilities that have
9 been making affordable base load renewable power since
10 the mid '80s. My presentation today is basically a brief
11 overview of the formal comments that we've submitted.

12 Undoubtedly you're going to get a lot of
13 feedback in this process that's focused on the issues and
14 opportunities that cut across the board: Ratemaking,
15 energy efficiency, reliability, Customer Choice. So I'm
16 going to leave those topics for a later date, and we look
17 forward to working the Commission, the Energy Office, and
18 policymakers on establishing comprehensive no-regrets
19 energy policy for Michigan that includes biomass.

20 So my presentation today will hinge on
21 two of the questions put forth in this forum. What
22 information do energy policymakers need to make good
23 energy decisions? And from the renewable section, what
24 is Michigan's long-term potential for renewable power, in
25 our case, biomass?

1 In general, we want to make policymakers
2 aware of the vast benefits of biomass power, the unique
3 dynamics of our industry, and the need for feedstock data
4 and information to assess the State's biomass potential.
5 So most of what I'm going to talk about today are fuel
6 resources, the dynamics of the fuel markets, so that we
7 can identify where those resources are and begin to
8 gather and inject specific data about those resources
9 into the energy policy discussion, and in our case,
10 that's all about wood.

11 Michigan Biomass is a coalition of the
12 State's wood-fired power plants that have been in
13 existence before the RPS. Most of these are operated by
14 independent power producers. They are all under
15 long-term agreements with Consumers Energy, and have a
16 total installed capacity of 162 megawatts, which
17 represents about half of all the wood-fired energy
18 capacity in the State. The other half is utilized by
19 commercial and industrial users for their in-house energy
20 needs, such as the pulp and paper industry.

21 There are six facilities that are members
22 of our group, our coalition: Cadillac, Grayling and
23 Genesee are nearly identical 36-megawatt plants that went
24 on line in the 1990s. They all operate under contracts
25 that have terms of dispatch, which means they are ramped

1 up or ramped down based on market pricing and demand.
2 The other three facilities are Tilden Power and then
3 Viking of Lincoln and Viking of McBain; they're
4 18-megawatt facilities that have been in operation since
5 the '80s, and they all operate under base load terms of
6 contracts, which means that Consumers buys every megawatt
7 hour that they produce.

8 There are other biomass facilities in the
9 State that are not a member of our coalition: L'Anse
10 Warden Electric is an independent power producer in
11 Baraga County; Northern Michigan University is in the
12 process of constructing a 10-megawatt facility to heat
13 and power its campus; Verso Paper put a facility on line
14 last year; Filer City is a coal plant that coal fires
15 with biomass; and then Central Michigan University, as
16 well as Michigan State, also utilize biomass for their
17 campus energy needs, although CMU's is currently off line
18 because of low gas prices.

19 The role of biomass power in Michigan's
20 RPS is significant. We represent about 35 percent of the
21 RECs currently registered in the MIRECS tracking system,
22 and historically we produce about 1 percent of all the
23 generation in the State in any given year.

24 There's a misconception that biomass
25 power harvests trees specifically for energy, and that

1 expanding biomass energy production will jeopardize our
2 forest resources, it's not economical, that's not
3 sustainable, and it just doesn't make sense. Biomass
4 power exists because we have higher value markets for
5 wood fire. We're ancillary to those industries. What we
6 do is we extract the last bit of value out of those
7 valuable forest resources: Cradle to grave, from forest
8 residue to mill waste to manufacturing byproducts, even
9 materials that are diverted from landfills, like crates
10 and pallets, we capture the last bit of value of that
11 material.

12 Some of the facilities use nonrenewable
13 fuel sources; these also help resolve solid waste
14 management issues, these materials enhance boiler
15 efficiency, reduce overall air emissions when co-fired
16 with small amounts of wood.

17 Biomass is truly domestic energy. Local
18 resources creating local jobs supporting local
19 communities. The dollars we spend stay local. The
20 largest factor in those expenditures is fuel, which
21 typically comes from about a 50-mile radius of a
22 facility. It creates jobs, produces markets for
23 low-value wood fiber that wouldn't exist otherwise.
24 These are mostly small rural communities with some of the
25 highest unemployment rates in the State, and these are

1 direct jobs, not trickle-down jobs. Most of the jobs we
2 produce are actually in the process of transporting,
3 processing, and handling fuel, so they're not within our
4 plant gates, but out in the forest products industry. We
5 also are some of the best paying jobs in these
6 communities. We pay property taxes, and we spend money
7 on diesel fuel, equipment, hardware supplies, office
8 supplies, chemistry, most of those locally sourced, all
9 of those certainly sourced within Michigan.

10 Biomass is dispatchable base load
11 renewable power. It's on demand, we help stabilize the
12 grid, particularly in rural areas. Once there was a grid
13 failure in the Wexford County/Missaukee County area, and
14 because McBain and Cadillac had biomass plants there,
15 they operated as an island, keeping power flowing to
16 those communities, so they prevented another, you know,
17 tens of thousands of ratepayers from being in the dark as
18 a result of those incidents.

19 Being base load, biomass also produces a
20 component of energy called VARs, which is, it's a lot of
21 engineering and physics I don't understand, but heavy
22 equipment such as industrial motors or pumps in milking
23 parlors require this characteristic to operate. So wind
24 and solar are DC generating sources that are converted to
25 AC, so they don't have this characteristic, which makes

1 biomass the only renewable power source in Michigan that
2 directly supports those industries.

3 Biomass power provides a method of
4 destruction of infested and diseased trees such as we saw
5 with the Emerald Ash Borer, it provides a market for
6 undergrowth removed to reduce the threat of forest fires,
7 and for land managers doing commercial thinnings or
8 wildlife habitat development. Biomass is part of
9 sustainable forest management, and even the certification
10 protocols that ensure that those practices are being
11 implemented.

12 Fuel is the most critical factor of
13 operating biomass because it represents about 80 percent
14 of production costs, and the cost of fuel is driven by a
15 lot of different and unrelated factors. Because it's a
16 byproduct, the cost is mostly processing and
17 transportation, which is driven largely by diesel prices
18 that have been trending upward. On the other end of fuel
19 economics are the avoided cost structures of the PURPA
20 contracts under which these facilities produce their
21 power, and that effectively creates a biomass price cap.
22 So you can really see the potential for the downward
23 pressure of caps and upward pressure of costs to at some
24 point in time it may become economical for that biomass
25 plant to produce power under the terms of those

1 contracts.

2 Life at the bottom of the wood fiber food
3 chain has been tough; we've been doing it for 30 years,
4 we've been able to survive. Under the RPS, however, not
5 only do we have to vie with other fiber competitors on
6 that fuel food chain, but now we also have to compete
7 with other sources of renewables, and for the pre-RPS
8 biomass power plants, we have to compete with the idea of
9 potentially new biomass power projects that have power
10 purchase agreements that have been tailored under the RPS
11 and the new and emerging renewable energy market. The
12 results of that has been very little growth in the
13 biomass power sector over the past decade, or even within
14 the RPS incentives. In most cases, the cost of biomass
15 feedstocks simply couldn't meet the constraints,
16 preferences and pricing factors that have emerged under
17 the RPS.

18 So what does a no-regrets energy policy
19 look like from the biomass perspective? First, we need
20 to preserve the biomass capacity that we already have.
21 These facilities have PURPA contracts with Consumers
22 Energy that are soon to expire, that according to the
23 Consumers renewable energy plan, they don't plan to
24 renew. Displacing this cost-effective base load
25 renewable capacity with new sources of renewable power is

1 really not a no-regrets energy policy.

2 So if we're serious about doing more
3 biomass, policymakers need to understand where these
4 resources come from; there are a number of systems out
5 there that have the capacity to do that. We need to find
6 the level of data, of information that will attract and
7 incentivize developers to look at Michigan for projects.
8 And, you know, certainly there are factors besides fuel
9 that are critical to biomass power, all of which must be
10 acknowledged as part of Michigan's energy policy.
11 Sensible incentives that specifically recognize the value
12 of biomass's unique benefits need to be a part of the
13 conversation. A no-regrets energy policy needs to ensure
14 the continued viability of existing biomass power
15 facilities and assess the State's resource capable to
16 support additional and sustainable biomass power.

17 Thank you.

18 STEVE BAKKAL: Thank you, Gary.

19 Our next presenter is Marty Kushler,
20 Senior Fellow representing the American Council for an
21 Energy-Efficient Economy. Please join me in welcoming
22 Marty to the stage.

23 MARTY KUSHLER: Good afternoon. I want
24 to thank Chairman Quackenbush and Director Bakkal and the
25 members of the audience for hanging in here on a long and

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1 very data-intensive day.

2 I'd like to talk today about a subject
3 that has been I think relatively neglected so far in the
4 forum process, and that is the issue of natural gas and
5 energy efficiency. There's been an awful lot of talk
6 about electricity in various forms and various policies
7 thus far.

8 The title of my presentation is "What
9 about cheap natural gas? Will energy optimization still
10 be cost-effective? And the material I'll be presenting
11 today relates primarily to three of the energy efficiency
12 questions identified per these policy reviews: Question
13 2 on a cost effectiveness of energy efficiency,
14 particularly in this case, natural gas; Question 4,
15 history of cost-of-conserved energy in Michigan. How
16 does that compare to the cost of generation, and in this
17 case, the cost of natural gas supply? And Question 10,
18 the remaining energy efficiency potential. And finally,
19 at the end I'd like to touch briefly on a question of
20 what impact would natural gas fracking in Michigan have
21 on a need for energy optimization programming.

22 You've undoubtedly noticed in the last
23 couple years a lot of media attention on natural gas and
24 how the technique of hydrofracking was bringing us
25 enormous supplies of really cheap natural gas, and this

1 could lead to a provocative question for these energy
2 policy forums of, wow, if natural gas fracking
3 revolution, natural gas is so plentiful and cheap,
4 shouldn't we all just go home? The answer, of course, is
5 not so fast. And I'd like to focus on the serious
6 question of: What are the implications of the recent low
7 natural gas prices for the future of natural gas energy
8 efficiency programs?

9 In thinking about this subject, the key
10 point No. 1 is don't be mislead by last year's extremely
11 low spot market prices. The absurdly low spot market
12 prices of less than \$2.00 an mcf or a million Btu seen in
13 early 2012 were the result of a perfect storm of unusual
14 circumstances. We had demand destruction from the Great
15 Recession, particularly in the industrial sector; we had
16 shale gas production from early high-production sites and
17 some gas dumping on the market; we had price
18 subsidization of dry gas from the wet gas and liquids
19 products that were being produced; and finally, we had
20 the non-winter of 2011-2012, which you may remember the
21 first four months of 2012 were the warmest January to
22 April in U.S. history and residential and commercial gas
23 consumption was down by 18 percent, gas storage levels
24 were at records levels and nearing capacity. All of
25 these factors contributed to really knock down the price

1 of natural gas last year. The key point here is that no
2 one should be making decisions about programs with
3 multiyear effects due to these record low spot market
4 prices that we saw last year.

5 Just to put these in context, this
6 help -- this graph shows the history of natural gas of
7 wellhead price, Henry Hub price over -- since the turn of
8 the century, and we had no fewer than four major natural
9 gas price crises during that time period where the price
10 of gas went to \$10 and above per mcf. Last year, this --
11 see if this laser worked -- we were below \$2.00 an mcf
12 for gas, and yet thinking ahead in terms of the risk we
13 face, how likely do you think it is that natural gas
14 prices are going to stay this low when this is the
15 history that we've seen for that commodity.

16 And in fact, gas prices have actually
17 already rebounded quite a bit from their record lows last
18 year, almost a steady increase since that point in time.
19 In April 2012, the prices fell just below \$2.00 a million
20 Btu; just last week, the price at Henry Hub was \$4.23 a
21 million Btu, an increase of over 126 percent from the low
22 point a year ago. Plus, it's important to keep in mind
23 that utilities and their customers don't pay the Henry
24 Hub price, they pay something that is more in terms of
25 the citygate price, which is the all-in cost of delivered

1 natural gas to the utilities. So when you're making
2 comparisons to energy efficiency program, you don't want
3 to start with the Henry Hub price.

4 But even looking at the Henry Hub, you
5 can take a look at what experts are saying about where
6 natural gas prices are headed. Mainstream forecasts
7 predict that Henry Hub prices will rise from the current
8 \$4.00 a million Btu to the \$5.00 to \$6.00 a million Btu
9 range the rest of this decade, and then \$6.00 to \$7.00 a
10 million Btu in the next decade. I'll show you a slide on
11 that in a moment. This is not surprising given that
12 industry experts say that those prices for gas need to be
13 at least in the \$5.00 to \$6.00 a million Btu range in
14 order to sustain a large-scale fracking industry in the
15 U.S. The industry has been selling at below the cost of
16 production for quite some time now. And I would note
17 that energy efficiency is already very cost-effective,
18 even at the current \$4.00 a million Btu Henry Hub price.

19 This is just a graph of gas price
20 forecasts by ICF International, one of the biggest
21 consulting firms to the energy industry. And as you can
22 see, natural gas in the \$5.00 to \$6.00 range through the
23 rest of this decade, rising to the \$6.00 to \$7.00 range
24 for the following decade. And remember, most natural gas
25 energy efficiency programs are installing measures that

1 have lifetimes in the range of 10 to 30 years, so they
2 will be saving energy throughout the cost curve that you
3 see there for the price of natural gas.

4 So this leads me to key point No. 2.
5 Under any realistically conceivable natural gas price
6 path, energy efficiency is robustly cost effective. In
7 terms of energy optimization for electricity, it's really
8 a slam-dunk issue; energy efficiency is far cheaper than
9 supply no matter how cheap the natural gas fuel is for a
10 gas-fired power plant.

11 This is a graph I borrowed from the
12 Northwest Power Conservation Council, they modeled out
13 what the effects would be at different prices of natural
14 gas for combined-cycle gas plants at different capacity
15 factors. It's a lot of information here, but basically
16 the little green bars is the cost of energy efficiency in
17 the pacific northwest, a little under two cents a
18 kilowatt hour, and these would be the Henry Hub
19 equivalent prices for gas. What you can see is energy
20 efficiency at a third or less the cost of electricity
21 from a gas-fired plant under these scenarios. Even if
22 you got as low as a dollar a million Btu, which is
23 hilarious, energy efficiency is still cheaper than
24 electricity from a gas-fired plant. So no question, no
25 matter what happens with gas prices, electric energy

1 efficiency, far cheaper than gas-fired electricity.

2 This is just a slide to show how the data
3 from Michigan compares, very similarly to what we saw in
4 that slide in the northwest; energy efficiency, the PSC
5 has reported, is costing about 2 cents a kilowatt hour.
6 Here in Michigan, the PSC has also projected the cost of
7 a natural gas combined-cycle plant at about 6.6 cents
8 under current low natural gas prices. That compares
9 almost identically to the graph I just showed you.

10 But natural gas energy efficiency itself
11 is also very cost effective. The MPSC in its report on
12 the energy optimization program found that gas efficiency
13 programs were saving about \$3.00 worth of cost for every
14 dollar of expense. If you calculate out the cost to
15 conserve energy from the gas, natural gas efficiency
16 programs, it's about \$2.00 a million Btu. Again, way
17 below the market cost of gas, even in the low-cost
18 scenario that we're in now. You can look at Consumers'
19 and Detroit Edison's most recent energy optimization
20 plans where they project out their costs over the 2012 to
21 2015 time period; again, way below the market cost of
22 natural gas. All of these energy optimization program
23 results are extremely cost-effective under current
24 projected natural gas prices.

25 In the interest of time, I'll go through
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1 several of these very quickly. I just include in my
2 filing here links and information on a number of other
3 sources for natural gas energy efficiency saving results,
4 in addition to the Michigan results I showed you earlier.
5 We conduct a number of these studies ourselves, we also
6 review studies done in other parts of the country. This
7 is just some data available there, again, all
8 demonstrating energy efficiency and natural gas for
9 about, in the range of 2.50 to 3.50 per million Btu, much
10 cheaper than the cost of, market cost of gas.

11 One particular policy question that has
12 come up which I wanted to address is the issue of: Would
13 it make sense to take money out of energy optimization to
14 pay low-income customer fuel bills? And the answer is
15 clearly no for several reasons.

16 First, that use of energy optimization
17 funds would be contrary to the clear purposes of PA 295
18 because it would do nothing to improve energy efficiency,
19 nor would it do anything to reduce future utility costs,
20 and might even be counterproductive if the customers had
21 a diminished motivation to conserve because their bills
22 were being paid by that source. Moreover, spending
23 energy optimization funds one time to permanently improve
24 the efficiency of these homes is much more cost-effective
25 than paying their fuel bills year after year.

1 As an example, DTE's most recent EO plan
2 calculates that low-income efficiency programs will save
3 gas at about \$2.20 cents an mcf; that's less than a third
4 of the cost of just paying their fuel bills.

5 Key point No. 3, and again, I'll move
6 through this very quickly as well, and that is that
7 Michigan has tremendous remaining potential for energy
8 efficiency; they've really only been doing these programs
9 since 2008. Michigan's building stock is relatively old
10 and inefficient, and we do have data showing what the
11 great extent of need is. Bottom line here, basically
12 two-thirds or more of all of our residential buildings
13 and commercial buildings were built in the era before
14 strong energy code, so we have an enormous amount of
15 building stock that really needs improvement for energy
16 efficiency. And I provide the citations to the studies
17 here.

18 The MPSC, to their credit, did do two
19 very nice studies where they looked at on-site audit
20 results of commercial buildings and residential buildings
21 around the country -- or around the State, I should say,
22 to look at their needs. I just highlighted what those
23 needs have been, were found to be; I put bold and italics
24 for those that are related to natural gas use, as you can
25 see. Just, you know, very large percentages of homes and

1 businesses lack very basic energy efficiency measures.
2 We have a tremendous amount of need out there.

3 So conclusions: Energy efficiency has
4 been and continues to be by far the cheapest resource for
5 Michigan, it's one-third or less the cost of generation,
6 it's also about one-third of the forecasted cost of
7 wholesale natural gas. Our building and equipment are
8 very old and need efficiency improvements.

9 And I did have one postscript point that
10 I wanted to make here, and that is there's a lot of
11 talk -- we haven't covered it in the policy forums, there
12 will be other venues where this will be discussed -- what
13 are we going to do about fracking gas in Michigan? I
14 don't want to get into that argument; the pros and cons
15 will be discussed, that debate will be had. The point I
16 want to make is that to Michigan's natural gas utility
17 customers, it doesn't matter if Michigan fracks a little,
18 a lot or none, Michigan's customers and utilities will
19 still pay the market prices for natural gas. And
20 Michigan's share of national production and reserves is
21 only about one percent. Michigan's production will not
22 affect the market prices for natural gas. Our prices
23 will be what you saw in those forecasts earlier. So
24 whatever Michigan decides to do regarding fracking will
25 have no effect on the conclusion that energy efficiency

1 is by far Michigan's cheapest energy resource, and that
2 natural gas energy optimization programs in Michigan have
3 been and will continue to be very cost-effective.

4 So I'll just leave you with this thought:
5 Whatever happens with natural gas development in
6 Michigan, energy efficiency -- and that should say
7 still -- is still the best example of a no-regrets policy
8 Michigan can have. Thank you.

9 STEVE BAKKAL: Thank you, Marty.

10 Our next presenter is Craig Borr,
11 President and CEO of the Michigan Electric Cooperative
12 Association. Please join me in welcoming Craig to the
13 stage.

14 CRAIG BORR: Good afternoon, Director
15 Bakkal, Chairman Quackenbush, ladies and gentlemen. It's
16 certainly a pleasure to be with you here this afternoon
17 to share with you a few of the thoughts of our members on
18 some of these major policy issues that we're going to be
19 looking at later this year.

20 There's really three parts to the brief
21 presentation I have here this afternoon: One, just to
22 tell you a little bit about who we are and what we do
23 throughout the 59 counties of rural Michigan; and then
24 lastly and perhaps most importantly, give you some of the
25 observations that we have on energy policy, specifically

1 the 2008 package that was produced by the legislature
2 here five years ago. Briefly, who are we? Who are
3 Michigan's electric cooperatives? Our investment in
4 Michigan, we'll talk about briefly, and really talk about
5 and brag, quite honestly, about some of the initiatives
6 that our members have been at the forefront of, not only
7 in renewable energy, but also energy optimization, as
8 well as electric Customer Choice, and then briefly we'll
9 sum up and really augment some of the written submittals
10 that we'll be making later this week with some of our
11 thoughts on the 2008 package.

12 The Michigan Electric Cooperative
13 Association, or MECA, is a statewide trade association
14 for the 11 electric cooperatives in Michigan. We really
15 represent those 11 cooperatives and in 4 principal areas.
16 Communication, we produce Michigan Country Lines
17 magazine, a publication that comes out ten times a year
18 that is sent to all electric cooperative members
19 throughout Michigan. We operate safety and loss control
20 programs, not only for many of our members, but also for
21 22 municipal electric -- or excuse me -- municipal
22 electric systems in Michigan. We also represent our
23 members in legislative and regulatory initiatives here in
24 Michigan. And then lastly, we operate an energy
25 optimization collaborative for many of the electric

1 cooperatives here in Michigan, as well as a number of
2 municipal electric utilities.

3 Who are our members? I won't go through
4 each of them, but you can see I think most importantly
5 and the point here to really stress is we have a
6 footprint in 59 of Michigan's 82 counties. We're very,
7 very significant in terms of the land area we serve. One
8 of the challenges we have in serving that area is that we
9 don't serve too many customers. Our density levels are
10 very, very low and very small compared to our investor-
11 owned counterparts like Consumers Energy and Detroit
12 Edison, as well as our municipal friends, like the City
13 of Traverse City here. So while we serve a very, very
14 large land mass, we don't serve very many people within
15 that 59-county footprint.

16 Electric cooperatives are very unique, we
17 have a very different business model and one that we're
18 very, very proud of. As I indicated, the areas that we
19 serve are incredibly rural. Many of those electric
20 cooperatives that I showed up on the screen a moment ago
21 were started because of private utilities, the big
22 investor-owned utilities, would not serve rural Michigan,
23 and I think it's probably fair to say that particularly
24 some of the remote regions of the Upper Peninsula, that's
25 probably still the case today; they're incredibly rural

1 and offer some real challenges for our members to provide
2 electricity in many of those areas.

3 We are not for profit, we're member-owned
4 and controlled. We are, each of our member cooperatives
5 are governed by a board of directors that are comprised
6 of the members of that particular cooperative. They're
7 governed just like, and subject to elections just like
8 members of the legislature, so it's a very, very
9 democratic process.

10 We're very proud of our commitment to
11 community. Each year our members reinvest millions of
12 dollars back into the communities they serve through a
13 number of initiatives and community enrichment programs
14 that are really at the forefront of what we stand for in
15 the areas we serve.

16 Lastly, as I indicated, we are incredibly
17 focused on service. We're not profit driven in any way,
18 so service is really where our initiatives are focused.
19 Over the last several years, we've partnered with the
20 American Customer Satisfaction Index in terms of their
21 customer satisfaction scores through the University of
22 Michigan, and are very proud nationally in terms of our
23 customer satisfaction indexes being in the mid 80s, and
24 that's very, very high for any utilities, let alone any
25 types of business.

1 Just wanted to share with you just
2 briefly sort of who we are with a little more detail
3 about our member cooperatives. As I indicated, we have a
4 presence in about 59 of the 82 counties here in Michigan.
5 That being said, that large land area, we only sell about
6 five percent of the electricity in the State; so again,
7 very, very low density levels in terms of the areas that
8 we serve throughout the State. We principally are
9 comprised in terms of our sales base of residential
10 sales.

11 The other challenge we have is about 40
12 percent -- or challenge we face is about 40 percent of
13 the meters that we serve are seasonal customers, people
14 that are there for very, very short time periods,
15 typically for a weekend or two perhaps during a hunting
16 season or something like that, so again, a significant
17 challenge when we have that same investment in terms of
18 distribution plant and simply don't have the sales to
19 recoup that investment.

20 I thought it was interesting, a couple of
21 the points that a couple of our previous speakers had
22 today in terms of sales per meter, and particularly in
23 other states, those sales per meter are very much in line
24 where we're at today even, pre-energy efficiency, and
25 that's really due to the fact that our sales are low

1 because of that, again, very high seasonal customer base
2 and the fact that we simply just have low sales really
3 due to the prevalence of natural gas, propane and wood as
4 well, particularly in the Upper Peninsula, as a heating
5 fuel. So our sales per meter are well below 800 kilowatt
6 hours a month, even without energy efficiency.

7 Nationally for co-ops, those numbers are around 1,200
8 kilowatt hours a month. So again, we face some unique
9 challenges, not only in energy efficiency, but really in
10 just generating revenue really due to that significant
11 seasonal base and those low sales per meter.

12 In terms of our member distribution
13 cooperatives, six of them are member-regulated, meaning
14 they're regulated by their individual boards of
15 directors, and three of them are still regulated by the
16 Michigan Public Service Commission.

17 We have one wholesale power supply
18 cooperative in Michigan, the G&T, stands for Generation
19 and Transmission. Wolverine Power Cooperative in
20 Cadillac is really owned by and serves six of those
21 electric distribution cooperatives in Michigan. It
22 provides both wholesale power and transmission, as well
23 as some other services to them; it is regulated by the
24 Federal Energy Regulatory Commission; owns and operates
25 around 1,600 miles of transmission throughout the Lower

1 Peninsula; and it's portfolio includes base load, peaking
2 and renewable generation not only throughout Michigan,
3 but throughout the midwest. Wolverine also operates in
4 both MISO and the PJM wholesale power markets.

5 I thought it was important when I was
6 thinking about what to put in this presentation today to
7 really share with you the kind of monies that we're
8 investing in Michigan. Over about a ten-year period,
9 electric cooperatives have invested about a billion
10 dollars in Michigan, and that will continue as we go
11 forward. We're very proud of that investment. Many of
12 those investments are being done with Michigan suppliers
13 and with Michigan employees, but they're very, very
14 substantial. On the generation side, we really have
15 three significant investments, two of which are
16 completed, one of which is ongoing. Certainly the
17 Harvest Wind Farm in Elkton, Michigan, was the first
18 commercial wind farm in the State of Michigan, and it was
19 done even prior to the RPS. The Sumpter power plant in
20 Belleville is a plant that Wolverine Power Cooperative
21 purchased from First Energy, it is a natural-gas-powered
22 power plant located very close to Detroit's Metropolitan
23 Airport. And then lastly, the Presque Isle power plant,
24 which Wolverine is presently working with We Energies
25 installing state-of-the-art air emission control

1 technology on, so that plant operates with a much cleaner
2 as well as competitive future.

3 In terms of T&D investments, transmission
4 and distribution investments, again, very, very
5 significant. That number over about a 10-year period is
6 around 750 million in terms of investing. I think it's
7 important to point out that electric cooperatives are the
8 leaders in automated metering technology. Many of our
9 members have had automated metering technology packages
10 in place for almost a decade now, so it's not new
11 technology to us, and it's something we're very proud of,
12 and again, helps us serve many of those challenging
13 areas.

14 There are really two I think principal
15 policy pieces that we're going to talk about in the
16 Commission and our policymakers will debate here
17 hopefully later this year. Public Act 141, which is the
18 electric Customer Choice Act, and really the package of
19 three that was done in 2008; energy optimization,
20 renewable portfolio standards, as well as that
21 ten-percent cap on Electric Choice.

22 I think, as I indicated, we'll be
23 submitting a number of written comments, as will others
24 in our industry, later this week to the website, but I
25 think there are really a couple of important points we

1 wanted to make here.

2 First and most importantly, Michigan can
3 not implement major energy policy changes each time we
4 have an administration. That's certainly not a
5 vindication or a finger pointing, if you will, at the
6 Snyder administration, but many of these are very, very
7 difficult to implement, and they take a significant
8 amount of time and resources to work towards the goals of
9 an energy efficiency program, as well as things like an
10 RPS.

11 Certainty is important. I think all the
12 utilities would agree with me that having certainty on
13 whether it be renewables, energy efficiency, customer
14 Choice, are all very important for us to make the kind of
15 capital investments that our industry is required to
16 make.

17 Lastly, and I think very importantly from
18 our perspective, we are generally very supportive of the
19 package that was done in 2008, I think it's a reasonable
20 package. Certainly not everyone got what they wanted as
21 a part of that, but I think there were a number of
22 compromises that are made there to really move Michigan
23 forward, and by and large, there are many good parts of
24 that package that was done in 2008.

25 In terms of RPS, we're proud to be
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1 leaders of the first wind farm in Michigan I talked just
2 briefly about. I think it's important to understand
3 renewables do have a place in the portfolio, and I think
4 it's important we have an honest discussion about what
5 role they do play. In terms of their cost, their lack of
6 scale and intermittency are all challenges that we faced.

7 I think one thing that we're going to hit
8 on very hard in our comments is the in-state requirement
9 for the RPS does place Michigan at a competitive
10 disadvantage, there's clearly no doubt about that. I
11 think from the electric cooperative standpoint, we'd like
12 to see the RPS open so we can procure renewables from
13 outside of the borders of Michigan.

14 In terms of energy optimization, we
15 certainly support the premise of EO in terms of helping
16 consumers be wiser users of electricity, but I think as
17 we go forward, these mandated targets that we have are
18 going to be very, very problematic for small utilities,
19 and frankly, become very, very expensive for our
20 consumers as we go forward; so we certainly look forward
21 to a dialogue on that in terms of ways that we can make
22 EO work, but make it work in a cost-effective manner as
23 well.

24 Lastly, in terms of Electric Choice,
25 co-ops support Electric Choice. It's really brought a

1 number of skill sets I think to our world that are very,
2 very important in terms of driving us to be more
3 competitive as well. And I think, for the record, we
4 wanted to point out that we did form an alternative
5 electric supplier here in Michigan that has been
6 operating in the marketplace since 2002; that entity
7 today has around 20 customers that it serves, and has
8 brought benefits to those 20 customers of about \$60
9 million of energy spent over that about 10-year period.
10 That being said, I think we feel strongly that Choice
11 needs to be limited with some sort of cap, again, to
12 provide some certainty to the marketplace here in
13 Michigan.

14 Some closing thoughts. Again, bottom
15 line, I think energy legislation is not a one size fits
16 all. Changes in terms of energy policy take a
17 significant amount of time to implement.

18 The 2008 package was generally well done,
19 I think we support many of the things that were done by
20 our legislature in 2008, but I think the bottom line is
21 this: Reliability, affordability, and the environment
22 must all be considerations when we move this package
23 forward hopefully again later this fall in conjunction
24 with not only the Commission, but the Michigan
25 legislature as well. Thank you for your time.

1 STEVE BAKKAL: Thank you, Craig.

2 At this point, I think it's a good time
3 to take a break. It's 3:00 o'clock right now, so why
4 don't we reconvene at 3:15, and we'll come back with the
5 public comment period. Thank you.

6 (At 3:00 p.m., there was a 15-minute recess.)

7 - - -

8 STEVE BAKKAL: We have received over 70
9 requests to speak. We are prepared to stay here until
10 6:00 o'clock, that's the latest we can stay here. We
11 were scheduled to stay until 5:00, but we can stay until
12 6:00.

13 How we're going to do this is we're going
14 to give -- in order to give as much time as possible and
15 go through as many requests as possible, we're going to
16 give each speaker three minutes to speak. We do have a
17 timekeeper in the front, and when there is a minute left,
18 she will give you a sign, and her sign will say minute
19 left to let you know to please wrap up your comments; and
20 when time is concluded, she will also raise another sign
21 that says time is concluded.

22 Now, we're going to do this a little
23 differently. We've done this in the past, but the
24 speakers tend to ignore those and keep going, and what
25 that does is a lot of the speakers that have been here

1 waiting for hours to speak don't get a chance to speak;
2 so what we're going to do is when the timekeeper says
3 time concluded, and she's going to raise it up for
4 everybody else to see, I'm going to ask that people just
5 raise their hand when they see that, and just give the
6 speaker an understanding that, you know, their time is up
7 if they didn't see it, and that'll give everybody a
8 chance, as many people the time to speak as possible.

9 We're going to call four speakers at a
10 time. I'm just going to call your name up once, so
11 remember the order that you're in. After the first
12 speaker is done, just come on up to the stage, state your
13 name, your affiliation, where you're from. If you do
14 have a presentation that you've brought with your request
15 to speak, we do have those loaded, so we can bring those
16 up.

17 Our first four speakers are Dan Minor,
18 Colleen Plummer, Steven Smiley, and Tom Gallery. If you
19 can all make your way to the front, and then, Dan, come
20 on up to the stage. Thank you.

21 DAN MINOR: Good afternoon. My name is
22 Dan Minor, I'm the equity owner and serve as chief
23 executive officer of Cadillac Casting, Cadillac,
24 Michigan. I have an equity investment in over 12
25 businesses in the State; we employ 450 people in Cadillac
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1 Casting alone. We're one of the largest employers in
2 Cadillac, largest taxpayer, larger consumer of water,
3 sewer, gas and electric in the community. We're also one
4 of the largest users of electrical energy in the State.

5 In 2005, I led a group to purchase the
6 former CMI Foundry facility which was set to close, and
7 we preserved over 400 jobs and an estimated 200 support
8 jobs in the community, not to mention a significant tax
9 base within the greater Cadillac area.

10 Our company recycles scrap steel; we take
11 scrap, we melt it down and make new product with it,
12 primarily for the automobile industry, and other
13 industries throughout North America. It's a fiercely
14 competitive industry with both domestic and international
15 companies competing against us every day. We can compete
16 on product quality, labor, raw material costs because
17 they're based on free-market forces and a level playing
18 field. We can not compete when energy costs are dictated
19 by State authority through an authorized monopoly, which
20 puts me at a significant disadvantage with my
21 customers -- my competitors. Excuse me. I also can not
22 support a system which picks the winners and losers
23 through the imposition of an arbitrary ten-percent cap.

24 The topic of my testimony is Electric
25 Choice.

1 Michigan's current market structure's
2 negatively impacted by our State's competitiveness as a
3 result of electric rates that are the highest in the
4 midwest and above the national average. For me, this is
5 just not data on the national report; I live the reality
6 of Michigan's high electric rates every day when I have
7 to go against companies throughout the world to compete
8 against us on major supply contracts. Because I'm
9 prevented from participating in Electrical Choice, I'm
10 missing out on saving over a million dollars a year that
11 could be used to grow the business, hire people, attract
12 and retain the best people, and keep us on the cutting
13 edge of technology. Without us, our municipal government
14 and the infrastructure in place in Cadillac would not be
15 able to operate efficiently, would be forced to pass on,
16 severely on market rates for users of the other
17 utilities, and in addition to the significant tax loss
18 for other local business units and the schools. The
19 house of cards would crumble in the community of
20 Cadillac.

21 By the way, these same -- really? I got
22 like six more pages. All right. I'll send it out. All
23 right. There's a lot of points we want to cover.

24 Okay. Conclusion: We believe the
25 system's broken. We think we should go back to

1 competitive market rates hundred percent, just like it
2 was prior; we think companies like ourselves should be
3 refunded for paying for the Choice program but not being
4 able to participate in the Choice program, and we don't
5 believe the utilities should be trued up at every turn
6 like they have been in the past.

7 STEVE BAKKAL: Can I have that?

8 DAN MINOR: No, there's some markups.
9 I'll submit it.

10 COLLEEN PLUMMER: Good afternoon. My
11 name is Colleen Plummer. I reside in Mason County,
12 Summit Township. I'm a 33-year business owner in
13 Pentwater, Michigan.

14 My reason for coming here today is I live
15 on the edge of the Consumers Energy Lake Winds power
16 plant, I have them within my view. I do not have a
17 problem with the appearance of these things and I'm all
18 for alternative energy in our country.

19 I grew up -- I was born in Michigan, my
20 father was a deep sea diver working on the Mackinac
21 Bridge. When that ended, we moved to south Louisiana, I
22 grew up with the oil companies. The area I grew up in
23 right now is considered one of the most contaminated
24 areas in the United States. Some of my friends I
25 graduated with in 1971 are gone; they were oil workers.

1 The problem I see here in Michigan right
2 now is there hasn't been enough dialogue between the
3 public sector, the people who are going to have to live
4 with these decisions, and the government who's making the
5 decisions. I see a lot of people here, they want jobs;
6 I'm all for it. I mean I have a business, I make my
7 money off these people, too, that come and resort in my
8 particular area.

9 But one of the things I've noticed we
10 dealt with, I belong to the power group in Pentwater,
11 Michigan, that fought the lake-based wind turbines. One
12 of the primary reasons we did this, we were concerned
13 about our tourism, but there was absolutely nothing, no
14 social meeting, no meetings of any type addressing the
15 public when it came to that until we pushed for it.
16 Something here I see is the same thing. Right here this
17 meeting is a wonderful meeting, I like these meetings and
18 what you're doing here. But you've got businesses here
19 that want to get their points across and promote their
20 ideas, and they should be given that time. The public
21 needs to be given their time, too, because right now we
22 have people that can't even live in their homes in Mason
23 County.

24 When our energy company came in at the
25 hearings and gave -- they went through the process of the
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1 hearings, but they didn't listen to the people.
2 Three-quarters of the people, and we have this on video,
3 objected to this, and many of them just didn't
4 understand, they just wanted to know more about it and
5 they wanted better setbacks for safety. The turbine
6 manufacturer required in their safety manuals 1,300-foot
7 setbacks plus, and do not stand in line with these wind
8 turbine blades. Our setbacks right now are at a thousand
9 feet. Our commission knew this, our planning commission
10 knew this; nobody stood up for us and protected us on
11 this particular issue.

12 So my recommendation to you is, first of
13 all, I want to say this, I think we should have Choice of
14 energy in my business; I'd save a lot of money. But we
15 need more -- and believe me, I can't believe I'm saying
16 this, but we need some oversight at the local level,
17 because there we have these things near gas, solar gas
18 pipelines, which we were told by engineers not to site
19 them there, we have people that are now sick, people who
20 signed on to these things, and believed them, but there
21 was nobody there to protect us, and the conflict of
22 interest is terribly serious. Three of our five township
23 supervisors signed leases, and the same thing holds true
24 in several other areas in our townships.

25 Okay. You want this concluded. Okay.

1 So anyway, I'm asking for better
2 oversight, better involvement of those, I would like to
3 see you meet with people who are currently living in
4 these areas, even stay with them to see it's real and it
5 needs to be addressed, because I want to see -- I want to
6 see some good come out of this.

7 STEVEN SMILEY: Thank you, Commissioner
8 Quackenbush and Steve.

9 I'm from the area here. There's a new
10 paradigm in renewable energy, and I'm sort of glad that
11 actually the Governor delayed his decision-making
12 process, because this year we can now say conclusively
13 that renewable energy is the cheapest source of all new
14 renewable energy source -- in all energy sources. And so
15 what's happened now is that everything is turned upside
16 down. That's the theme of my presentation. Everything
17 is upside down and -- excuse me -- under water and inside
18 out. I'll let you read this, and my report will be in
19 the website.

20 And so with this kind of upside down
21 thinking, this is sort of a creative idea here; we need
22 20-by-20, and this is a 20-percent coal instead of 60
23 percent by 2020, and I think we can do that. Should be a
24 policy, since we own all these anyway, we're all going to
25 pay for them, we're going to have to pay for the cost of

1 shutting down these coal plants, but it's something we
2 need to get busy on.

3 We don't really need anymore significant
4 transmission line expenses in my view because we need to
5 build the grid from the inside out. This is with
6 distributed wind and solar and combined heat and power
7 generation, and maybe some of it with natural gas, but it
8 also could be biomass and using energy storage systems
9 such as electric vehicles and using electricity for
10 thermal heating and cooling in lieu of gas and oil.

11 And so here I reverse this. My proposals
12 are to eliminate the 1-percent limit on the net metering
13 that we have and make it pretty much open and unended;
14 eliminate the 10-percent renewable portfolio standard;
15 change the 100 percent by 2025; eliminate the 10-percent
16 cap on Customer Choice, but uniquely make the Customer
17 Choice for local distribution of renewable energy, not
18 coal from Ohio like most of the Customer Choice programs
19 use, old dirty coal plants selling it cheap. And then
20 the other one I mentioned, implement a carbon tax for
21 electric generation, one cent per kilowatt hour would
22 generate a billion dollars in Michigan, and Traverse City
23 Light & Power would still have lower rates than Consumers
24 Energy and Cherryland. The resources are certainly
25 there.

1 I don't have -- is this a pointer. Down
2 in the little corner in the bottom to is world energy
3 consumption; the orange is solar resources. It's all
4 self-explanatory.

5 Last Thursday I took a look at the Danish
6 utility grid, and they were generating 80 percent of the
7 country's -- 81 percent of the country's, from wind
8 power, 81 percent Thursday.

9 This green area, you can make all of this
10 wind.

11 (Audience interruption by applause.)

12 Does that mean start or stop? Okay.
13 Thank you. So wind power, solar are now the cheapest
14 renewable energy resource. Thank you for your time.

15 TOM GALLERY: Hi. My name is Tom
16 Gallery, I'm from Northport.

17 And what I'm going -- I'm not going to go
18 through this since it went from five minutes to three
19 minutes, but I want to answer Question No. 4 about the
20 predicted cost of new energy generation. And title is
21 The New Normal for Solar PV. Most people think that it's
22 the most expensive; it's now become competitive with just
23 about every other energy source, under \$3.00 per watt
24 installed. There's an example of one that we installed
25 recently on a farm in Northport.

1 The old normal, only two years ago, \$6.00
2 per watt installed for residential, \$5.00 for commercial,
3 these were 20- and 30-year paybacks, and they required
4 major incentives to install them economically.

5 Solar PV is now the win/win new source.
6 For residential, payback for ten years, \$2.50 to \$2.80 a
7 watt. For commercial, this is farms and small
8 businesses, seven to nine years; that's because they can
9 claim accelerated depreciation. They produce energy on
10 the grid demand cycle. You saw a lot of talk about wind
11 being at the wrong time. Solar is at the right time.
12 Prices are expected to remain low, and systems last over
13 25 years with virtually no maintenance, and they build
14 out very quickly; a few weeks to a few months.

15 There's the solar production in the red,
16 and there's the grid demand in white, and that's a very
17 typical mid summer type demand and supply curve, so it
18 takes pressure off the grid to make solar much more
19 valuable than any of the other resources that we have.

20 Very quickly, through the under \$3.00
21 equation, the components, anybody in this room can go out
22 on the internet and go and buy everything they need for
23 an \$8,000 residential rooftop system for about
24 \$1.60-\$1.70 a watt. Then you'll add to that the labor,
25 people working for \$80 an hour can install that in three

1 days, and then you'll see a simple payback of around ten
2 years on the system.

3 Michigan needs to do some things; it was
4 mentioned before, raising the net metering levels, at
5 least doing some meter aggregation for homeowner
6 associations. For farms, meter aggregation, farms often
7 have three, four, five meters that aren't allowed to be
8 net metered or are in the wrong place on the farm so it
9 doesn't make any sense.

10 So I'm just going to close with that
11 under my minute, my three minutes. Under \$3.00 a watt
12 installed, and there's an example of a farm right here
13 near Traverse City, \$2.67. Thanks.

14 STEVE BAKKAL: Thank you. Our next four
15 speakers are Doug McInnis, Al Noftz, Bill Wednieski, and
16 Libby Wheatley, please bring yourselves up to the front.

17 DOUG McINNIS: Good afternoon. My name
18 is Doug McInnis, I am the president of Northport Energy
19 Action Task Force, and I'm managing manager of the
20 Leelanau Community Energy, LLC. We're located up there
21 in the little finger there of the Leelanau Peninsula.

22 Our demographics, population are 500 in
23 the village there, but it probably doubles in the
24 summertime with all the boaters and so forth. Our
25 mission is to encourage energy efficiency and the

1 installation and use of renewable energy to achieve in
2 the future 100-percent renewable energy for our area.

3 We are a community-type operation. Our
4 basic model, we have a nonprofit, that was Northport
5 Energy Action, and that takes care of helping on energy
6 conservation purposes. Leelanau Community Energy is
7 involved in projects where we're actually installing and
8 operating renewable energy. And being local, we're
9 involved in local financing, ownership, we got local
10 jobs, engineering, construction, installation, and this
11 model can be duplicated across the State.

12 Northport Wind Turbine project was our
13 key project here over the last year. This is a Vestas
14 120-kilowatt wind turbine that is located at the waste
15 water treatment plant and supplies 50 percent of the
16 waste water treatment plant electrical needs, and we're
17 under the Consumers Energy net metering plan.

18 The project cost \$353,000; that includes
19 the turbine, building a 700-foot access road, underground
20 installation, transmission line installation, and the
21 installation costs. That's \$3.00 per watt. Now, if we
22 add in the treasury grant which we were eligible for,
23 that brings it down to \$2.10 a watt. This was handled by
24 our local people. We didn't go to the banks because the
25 banks said, collateral, what do you have? Wind turbine.

1 Well, we don't know what to do with that, our panel. So
2 this was all done locally. And the payback, as you can
3 see, about 10 to 12 years.

4 As Tom previously talked about some
5 different solar projects in our, again, community, here
6 is solar roof installed on my house, and there is how
7 we're tied into the grid. Here's another example of
8 local solar-installed installation, a ground
9 installation.

10 Okay. So and then our energy efficiency
11 we do get involved with, there's a case where we have
12 demonstrations in our public library. With as little as
13 \$50 invested by a homeowner, he can save up to \$200 a
14 year.

15 Am I up? Oh, I'm sorry.

16 AL NOFTZ: I'm Al Noftz, I'm also part of
17 the Northport Energy, and I'm really good at unscrewing
18 lightbulbs and screwing CFLs in, so if you need help
19 later, see me. But I'm not here to talk about that
20 today.

21 What I want to talk about is our net
22 metering policy. And it was developed in the '70s, and
23 the trouble with it is that it doesn't fit today's
24 standards.

25 This is Gary Fredrickson's farm, I went
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1 and visited him, and he would love to do this stuff, he's
2 looked into it, he knows the solar, he knows the wind, he
3 knows the biomass; he wants do it. He's got all that
4 stuff. He has a nice barn, all ready for solar. He's
5 got three-phase power. However, he's got one meter there
6 by the barn. He has to cool the cherries. They get more
7 money when the cherries are stiffer when they're cold.
8 They don't wash them, they cool them. But there's his
9 other meter, and he has about two pumps. You go over
10 here, there's the meter at that pump. You go to the
11 other part, he has another housing meter for his workers.
12 On the back side, another meter. And he has housing for
13 family and stuff, and guess what, a fourth meter.

14 He gets -- this is wrong -- he gets four
15 bills in four envelopes at the same day for all those
16 meters, but he can't pump into all four of those meters,
17 he can only put 20k worth of watts into one meter. So
18 they need to change that. And he can only put 20k worth
19 in. With four meters, he could do 80k, he could run the
20 whole place and have no bill. So that's our problem.

21 Here's his engineering plan. See the
22 little lines, all those little lines there, those are all
23 the wires he would have to do it under net metering,
24 20,000 or better to do that. That kills his project.

25 Here's what they wanted him to do; hook

1 it all together and go out through one meter. Cost: 20
2 grand.

3 So we don't want him to do that, we want
4 him to change and we want him to have meter aggregation
5 and/or virtual metering.

6 Did I beat Tom?

7 UNIDENTIFIED: You still have time.

8 AL NOFTZ: I'm done.

9 BILL WEDNIESKI: Hi, there. My name is
10 Bill Wednieski, I'm a director at Severstal down in
11 Dearborn, Michigan, and honored to speak to you today.
12 Today is Earth Day, it's also my birthday. Thank you.

13 How many people have ever heard of
14 Severstal in this room? So not very many. We keep a
15 pretty low profile, sometimes too low. We have 70,000
16 workers worldwide, we have about 4,500 direct here in the
17 United States, and we are a Russian-owned company. Our
18 Russian steel division provides a lot of cash, and so
19 that's led to all this foreign direct investment in the
20 United States.

21 When the Rouge Steel Division went into
22 bankruptcy in 2003, Severstal acquired the assets out of
23 bankruptcy, and to date has invested \$1.7 billion to
24 refurbish Henry Ford's steel mill. We also operate
25 another similarly sized facility down in Columbus,

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1 Mississippi, that had a price tag of 1.6 billion, and our
2 power costs down in Mississippi are about two-thirds of
3 what they are here in Michigan.

4 And what I'm here to talk about is
5 Choice. And the Choice program is closed to us, we can't
6 get in, and it's putting us at a competitive
7 disadvantage.

8 One of the reasons why we love Michigan
9 is we're an automotive -- in Dearborn, Michigan, we're an
10 automotive steel facility, and so we are, two-thirds of
11 the stamping capacity in North America is within 300
12 miles of us. The Cleveland Cliffs Mine up in Marquette
13 is where we get all our iron ore pellets, and the Great
14 Lakes are key to us getting our iron ore quickly and
15 cheaply, and it keeps thousands of trucks off the road
16 having access to water here. It's one of the reasons why
17 Henry Ford built the mill where he did.

18 This is probably the key of my
19 presentation. When you guys kicked off, Mr. Quackenbush
20 and Mr. Bakka kicked off, they said: What information
21 do policymakers need to make good energy decisions? This
22 is it. On the top line on the right there, what I did is
23 I looked at what would happen in the past three years if
24 you had invested in all these various different
25 companies, and in this time, Chrysler's gone into

1 bankruptcy, General Motors has gone into bankruptcy;
2 however, if you invested in CMS and DTE, the only two
3 choices we have, you would have returned 80 percent and
4 60 percent. If you would have invested in General Motors
5 or Ford, you would have been under water. And the two
6 bottom lines there, down there at 70- and 85-percent
7 losses, that's AK Steel and U.S. Steel, our competitors.
8 And so I'd ask you, what do we want Michigan to be, a
9 manufacturing state or a state where utility companies
10 are the only way to be profitable?

11 I've got a couple more slides, but I'm
12 about out of time. They'll be on the website for you to
13 review. I wanted to leave -- I put a bunch of slides in
14 here that look like a lot that you've seen at others, and
15 I did find it interesting, everybody keeps saying how
16 Ohio and Illinois and Indiana all have cheaper power
17 rates; however, when DTE spoke in Detroit at the end of
18 March, they said, no, no, no, that's not the case at all.
19 Well, why does everybody keep saying it? Mr. Quackenbush
20 in his opening remarks said exactly the same thing. It's
21 a fact, we pay too much here in Michigan.

22 LIBBY WHEATLEY: Okay. Hi. My name is
23 Libby Wheatley, I'm actually a sociologist at Grand
24 Valley State in Allendale. I live in Oceana County.
25 Relatively new to Michigan, I grew up in the Boston area.

1 I got interested in wind energy just
2 months after buying my first ever home after I learned
3 that BP leases virtually all the farmland around my home
4 with an eager desire to build an industrial wind project.
5 Because I'm a health researcher, a sociologist of health,
6 illness, medicine, health and social inequalities and
7 health and human rights, I started to ask, I wonder what
8 the health impacts are for the local residents who live
9 in the so-called footprint areas of these facilities. I
10 was extremely dismayed by what I found, I became alarmed,
11 and I am now both a scholar and, I would say, an activist
12 trying to get the truth out about the deleterious impacts
13 on human health that industrial wind energy is doing to
14 the rural people of Michigan, New York, Ontario, and in
15 Massachusetts, their suburban residents, Maine,
16 Australia, New Zealand, the U.K., Denmark, it goes on and
17 on. I'm happy to share my written work with you; I'm
18 working on a book. I realize we don't have a lot of
19 time.

20 This Ubly, Michigan. Look how close
21 those turbines are to people. These folks, by the way,
22 are all gagged at this point. They've settled a 17-party
23 lawsuit against the wind company because of adverse
24 health impacts. The wind company did not want it to go
25 to trial. Wind companies throughout the world do not

1 want these things to go to trial because they don't want
2 the truth to get out about the low-frequency noise, the
3 infra-noise, and sometimes the high-frequency electrical
4 pollution and/or stray voltage dirty electricity that
5 people are being exposed to.

6 This is all in Ubly. This guy came
7 chasing, he's chasing at me because he thought I was a
8 turbine hugger, i.e., someone that's pro wind energy; I
9 had to say, no, no, no, I'm really, I'm trying to
10 document things that are happening here. He came at me,
11 he's so mad; he's gagged.

12 Again, Ubly, Michigan. I've traveled
13 about 12,000 miles, I've done about 200 interviews
14 ranging in length from an hour to eight hours in length;
15 I've stayed at people's homes. Most of these are rural
16 residents, therefore, they are a dramatic numeric
17 minority, they are also geographically isolated, so the
18 people in the suburban and rural areas who are mandating
19 more and more renewables by such and such a date, they're
20 invisible.

21 These folks who live in the footprint
22 areas of industrial wind projects throughout the world
23 are collateral damage for energy initiatives and
24 sustainable development projects that are being
25 orchestrated at the United Nations and all the way on

1 down. More and more, the patterns we witness is that
2 local control over zoning is being taken away from the
3 citizenry, it's being put in the hands of regional
4 entities or county entities. The decision-making is
5 being taken away from the citizens who have to live with
6 these things. Undemocratic decision-making, this is an
7 environmental justice issue.

8 I would say unequivocally industrial wind
9 energy is absolutely not clean, it is absolutely not
10 green, it is dirty, it is based on dirty politics, it is
11 a worldwide scam. The first developer of industrial wind
12 in this nation is Enron. Think about it. Connect the
13 dots, people. Look at the images. People are abandoning
14 homes, they're getting sick. They should --

15 (Audience interruption by applause.)

16 Thank you very much. The truth will get
17 out, and I will write about it. The truth will get out.

18 STEVE BAKKAL: Somebody left their pad
19 here.

20 Our next four speakers are Maggie
21 VanHaften, Evelyn Bergaila, Tonya DeVore, and Fred
22 Sittel, please come up to the front, and Maggie.

23 MAGGIE VanHAFTEN: Chairman Quackenbush,
24 Director Bakkal, thank you for being here today. My name
25 is Maggie VanHaften. And in the spirit of full

1 disclosure, I have had 32 years working in the energy
2 business, primarily with energy conservation, actually
3 energy conservation that became energy efficiency that
4 became energy optimization, so I've been in through three
5 name iterations. I retired from the Public Service
6 Commission in 2010, and now live in northern Michigan.

7 One of the benefits of speaking last at
8 these sessions is that I can rely on what other people
9 said, so I can say to Marty Kushler, please pay attention
10 to what he said, I don't think there's anyone in this
11 State that knows more about the economics of energy
12 conservation, energy efficiency than Marty.

13 Secondly, I would like to reiterate what
14 Craig Borr said about the need to have sustainability
15 with these programs. Michigan has a long history of
16 gearing up, doing efficiency programs with companies,
17 private nonprofits, utilities, getting the program
18 started, hiring the people, and then having them
19 eliminated.

20 We need to pay attention to low-income
21 customers. We pour a lot of money into their energy
22 assistance, paying bills every year. The dollar amount
23 that goes into paying their bills is nothing compared to
24 the arrearages that they accrue because the assistance
25 doesn't cover anything. Often these people live in

1 deplorable housing situations; they can not afford to
2 move, they can not afford to weatherize.

3 Finally, as a resident of northern
4 Michigan, I would like to say something about wind, and
5 especially industrial wind. We see the maps of the
6 potential for wind development in Michigan; it does not
7 take into consideration the land used and the fact that
8 in many of those areas, we're looking at rural
9 residential sizes of land, not huge farms. The impact on
10 those people, especially if you're considering the health
11 issues I think that Ms. Wheatley brought to your
12 attention, they're huge.

13 We have a history as people, as human
14 beings, no matter where we are and no matter what the
15 issue is, is trying to find the easy pill that will make
16 all the problems go away. We saw that with nuclear that
17 was going to be too cheap to meter, and we know how that
18 worked out. I'm asking that we consider all the options
19 very, very carefully, and also reiterate about keeping
20 the zoning local.

21 Finally, what hasn't been said so far is
22 that, while I'm very pleased you're here, I'm
23 extraordinarily disappointed that there aren't members of
24 the legislature sitting next to you. Historically there
25 has been an incredible disconnect between the legislature

1 and the experts that work for the staff on the various
2 departments in the State, and they don't listen. I think
3 term limits has increased that. So what I want you to
4 convey to the legislature is I and I'm sure a lot of the
5 people out here are going to be watching them very
6 closely with the decisions that they make. Thank you.

7 EVELYN BERGAILA: My name is Evelyn
8 Bergaila, and I live in Mason County, Michigan. By
9 profession, I'm a landscape architect and land planner.

10 I live a mile and a half from Cary
11 Shineldecker, basically the geographic center of
12 Consumers Energy's Lake Winds Energy Industrial Project.
13 I can't call it a park. It's not a park. I'm surrounded
14 by turbines. I have ten within a mile of my home. And
15 as I said, 56 are surrounding me in a community that I
16 once loved.

17 Thank God for Libby Wheatley, going out
18 and finding out what is happening to people, to people
19 who live in these communities, who are gagged, who have
20 stories, who had hopes and dreams of where they lived.
21 And I guess the question I would ask is, why isn't the
22 Michigan Public Service Commission doing this? Why are
23 they blithely going down the road of supporting these
24 projects where people are being so impacted and we are
25 impacted?

1 I can tell you that truly, it's
2 locational. When I'm at home, I have health impacts.
3 When I'm here, surprise, they stop. Or when I'm staying
4 away from my house, I don't have those impacts any
5 longer. So it's locational. I'm not dreaming this, I'm
6 not making this up.

7 I used to attend Michigan Wind Shop
8 meetings back in 2003-2004, I was an early comer on this,
9 and there was a wind turbine developer who told me that
10 he could do more for the environment, more for being
11 green if he opened up a window caulking company and
12 caulked windows and saved energy. I said why didn't he
13 do that; and he told me, it was because he could make
14 more money having wind turbines, building wind turbines.
15 So basically this is about money.

16 I get no money from the wind turbines; I
17 have a 50-acre farm. If you hear that all people who are
18 affected get money, it's not true.

19 The end point of all this is, is that you
20 have people who their dreams are crushed and they end up
21 in court, and I am one of the people who's suing
22 Consumers Energy for what they've done to my dreams, my
23 retirement, my hopes, my farm, my health.

24 TONYA DeVORE: First of all, I want to
25 say thank you to the gentlemen here for having us here

1 today and allowing us the time to speak. My name is
2 Tonya DeVore, and I am a staff representative with the
3 United Steelworkers.

4 United Steelworkers represents 1.2
5 million working and retired members throughout the United
6 States and Canada. And our members support renewable
7 energy, not only for the jobs that it creates, but for
8 the protections that it causes on our environment.
9 Already, renewable energy investments in Michigan are
10 helping to build a stronger, more sustainable economy,
11 significantly helping to combat the effects of climate
12 change. We must recognize the importance of these
13 investments by finding ways to implement them.

14 I am here to respond to the question,
15 "What are the related costs and benefits of a range of
16 possible energy efficiency standards, including
17 maintaining our current standard and increasing it to
18 various levels?"

19 To compete in the 21st century global
20 economy, we must build the industries that are driving
21 the economy here in Michigan here now. Other countries
22 across the world are investing heavily in clean economy,
23 but here in the U.S., we need to do more.

24 Michigan is uniquely positioned to take
25 command of our renewable energy. Strategic investments

1 in renewable energy can build on the State's engineering
2 expertise and modernized machining.

3 A key component of a clean economy is the
4 development and production of renewable energy.
5 Expanding these markets in the United States has enormous
6 potential to create good jobs, while reducing greenhouse
7 gas emissions and our dependence on foreign sources of
8 energy, building a cleaner, more efficient and more
9 competitive American economy.

10 Energy efficiency programs and renewable
11 energy goals are creating in-state good-paying jobs that
12 can not be outsourced. More than 200 Michigan companies
13 are engaged in the wind and solar industries alone.

14 In addition to helping maintain America's
15 competitive edge in creating jobs, investments in
16 renewable energy are helping to curb greenhouse gas
17 emissions and the effects of climate change. The
18 consequences of doing nothing to combat the effects of
19 climate change will result in a reduction of the global
20 GDP by at least five percent per year on an ongoing
21 basis. The costs of inaction are real, and that is
22 according to a report by the NRDC entitled The Cost of
23 Climate Change.

24 If we fail to continue Michigan's
25 renewable energy investments, we risk losing ground that

1 we've gained in these industries now and for the long
2 term. Incentivizing the production of clean renewable
3 energy is something we can all agree on. Encouraging the
4 development of these markets will mean increased
5 competitiveness and more job creation as we stake our
6 claim in the global clean energy economy, and we can not
7 do this without strong investments in renewable energy
8 now and into the future. Thank you.

9 FRED SITTEL: Hi. My name is Fred Sittel
10 of Bellaire, Michigan.

11 I'd like to echo Craig Borr's comments
12 from the Michigan Co-ops to balance energy optimization
13 programs with affordability; however, I strongly disagree
14 with the fact that co-op boards are democratic and that
15 they should be afforded the right to self-regulate.

16 As soon as the Michigan Public Service
17 Commission looked away, the majority of co-op customers
18 began preying on minority customers. That minority will
19 see their rates go up as much as 20 to 30 percent this
20 September due to cost-of-service rate structures that
21 allocate the fixed costs equally to all members. Some
22 fixed costs certainly are the same for all members, but
23 another component of fixed costs, such as substations,
24 transformers, switches, which are sized to meet the peak
25 demand load, are not.

1 Customers that use small amounts of
2 electricity contribute less to the cost of achieving and
3 maintaining the ability to meet peak demand than
4 customers that use large amounts of electricity. That
5 portion of fixed costs should be allocated based on the
6 customer's demand profile. That approach will not only
7 more accurately represent the true cost of servicing that
8 customer, but very importantly, it will help preserve
9 access to electricity for customers with low consumption.
10 Those type of customers are single people living alone,
11 couples without children, people that live in smaller
12 homes, and often people that do not heat their water with
13 electricity.

14 I find it almost ironic that the co-ops
15 are saying that energy optimization programs are a major
16 driver in adopting these aggressive cost-of-service rate
17 structures with flat allocation across all of their
18 member base. The EO programs were enacted to reduce
19 consumption in order to forestall the need to have more
20 power plants; yet it's the customers that contribute the
21 least to the growing demand for electricity that are
22 being penalized by these cost-of-service rate structures
23 that allocate fixed costs evenly across all customers.
24 Thank you.

25 STEVE BAKKAL: Thank you. Our next four
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1 speakers are Fred Geroux, Pete Ostrowski, Allan O'Shea
2 and Ken Wieber, please come up. Now we have two pads.

3 FRED GEROUX: Good afternoon. Fred
4 Geroux, I'm an engineer, began my career 46 years ago or
5 so as an internal combustion engine performance and
6 development engineer. The last 35 years I spent in
7 energy efficiency and renewable energy design.

8 Twenty-five years ago, we're going to go
9 back to the future now, 25 years ago, under Governor
10 Blanchard, we conducted what was known as the Michigan
11 Electrical Option Study. Had six works groups. First
12 work group, I examined the options for improving existing
13 generating transmission and distribution systems for
14 extending the life and extending power. Work Group 2
15 examined potential demand management options. Work Group
16 3 invested [sic] the potential for nonutility power
17 production, including cogeneration and alternative fuels.
18 I worked on that work group and coauthored the final
19 study. Work Group 4 examined new utility power plant
20 options. Work Group 5 prepared a series of base line
21 electrical peak load and sales estimates. Now, this is
22 all 25 years ago. But the most important work group of
23 the whole bunch was Work Group 6. They developed the
24 integrated planning model that would take in all these
25 inputs and determine the least end-cost source of energy

1 for the next quad or five quads, whatever had to be
2 developed.

3 We found out in the process -- I've got
4 to skip about eight pages, this will all be on the web --
5 this is unprecedented in its scope, the MEOS project,
6 involved 200 participants from more than 90
7 organizations. We spent two and a half years; it took a
8 year and a half to listen to each other, and then we got
9 to move forward. The study data is old, but the
10 integrated planning model is a good place to start from.
11 We found the inefficiency then, and we know now listening
12 to Marty -- I've known Marty for over 35 years -- we know
13 that efficiency is the least-cost option there is out
14 there now, and we have gone nowhere with that.

15 I've been through four governors in the
16 energy policy, and we take a left and then we take a
17 right and then we take a left, and now we're taking a
18 right again. If we have an IPM that we're working with
19 through the Public Service Commission that collects the
20 data that's needed for it to properly operate, we can
21 move forward with an energy plan for this State that will
22 make sense. If we have to have an energy policy that
23 evolves from one administration to another, it would seem
24 that the development and use of this integrated planning
25 model would logically get us from point A to point B and

1 so forth. If we continue to change course from
2 administration to administration, we will never advance
3 in this environment of diminishing resources and
4 diminishing environmental quality. Let's do the smart
5 thing and choose our energy development use via an
6 analysis of demand and least end-cost options.

7 If you want to read the rest, it will be
8 on the web. I didn't even -- I made it.

9 PETE OSTROWSKI: Hi. I'm Pete Ostrowski,
10 I'm the Environmental, Health and Safety Manager for Cone
11 Drive Operations. We're a gear manufacturer located in
12 the heart of Traverse City since 1950. We have an old
13 plant and office complex with a separate test and
14 training facility. Our oldest part of the plant was
15 brought up brick by brick from Detroit to build bomb
16 casings during World War II. John Parsons and Frank
17 Stulen invented numerical control on the site before it
18 became Cone Drive. Our industrial gearing is used in
19 everything from huge foundry ladles for moving molten
20 steel to medical imaging machines and everything in
21 between; just finishing a project where 96,000 of our
22 gear boxes are being used in Ivanpah Solar Power
23 Generating Station, currently the largest solar plant
24 under construction in the world. We are a Michigan
25 company that benefits from investments in renewable

1 energy. But my main point today is addressing the
2 continuing need, as the previous speaker, to support
3 improvements in energy efficiency.

4 Efficiency Question 10: Given our
5 current technology, how much energy efficiency is
6 technically feasible? And what is the remaining
7 cost-effective energy efficiency potential?

8 Past few years, working with Light &
9 Power here locally and local contractors, we improved the
10 energy efficiency of our plant by installing more energy
11 efficient lighting, upgrading to a variable speed air
12 compressor, installing higher efficiency chiller for our
13 test facility. Our efforts over four years have saved an
14 estimated 560,000 kilowatt hours per year, nearly what
15 the large TCLP windmill generated in a year. We
16 naturally believe in both renewables and energy
17 efficiency.

18 At the Traverse City Energy Summit last
19 summer, the main speaker, Peter Garforth, made the
20 statement that renewable energy is fine; but you should
21 first invest in energy efficiency, often much more cost
22 effective, as some of the speakers have pointed out.
23 European countries are two to three times more energy
24 efficient than the United States.

25 Manufacturers must be extremely cost

1 conscious, having to compete with other manufacturers
2 around the world. Energy efficiency is a win/win for us.
3 However, we don't have unlimited funds, and energy
4 efficiency projects generally have to compete with other
5 capital projects that have paybacks of three years or
6 less. As we have already picked most of the low-hanging
7 fruit, our improvements are becoming more and more
8 expensive to install. Therefore, we support a stronger
9 push for energy efficiency paying for improvements that
10 cost the utilities up to what the lowest next energy cost
11 might be.

12 Let's work together to save as much
13 energy as possible for spending on new generation
14 facilities. Thank you.

15 ALLAN O'SHEA: Good afternoon. My name
16 is Allan O'Shea, and I have lived in Manistee County and
17 had a business in Manistee County for almost 40 years. I
18 would like to thank Governor Snyder, the State of
19 Michigan, and especially Commissioner John Quackenbush
20 and Michigan Energy Director Steve Bakkal for being the
21 eyes and ears for these very valuable listening sessions.

22 A little about my background. I have
23 been in the renewable energy business, in the industry
24 for over 40 years. As first president and founder of the
25 American Wind Energy Association in 1974, I also

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1 cofounded the Michigan Energy Fair that's taking place in
2 Ludington this year, and I'm currently on the Great Lakes
3 Renewable Energy Board. I have seen our State begin to
4 transform itself into a viable energy producer. We can
5 not slow down; we must accelerate these efforts to
6 produce clean, safe, and local energy production for all
7 of our residents.

8 My company, Contractors Building Supply,
9 has invested a great deal of money, our own money, and
10 time, to create an assembly partnership with a large
11 photovoltaic manufacturer from India, so Sonali Solar.
12 Our efforts to create good full-time jobs, seven will be
13 created this year, and economic growth for northern
14 Michigan is a driving force for our company, and it's all
15 Michigan affiliates. All the products that we use are
16 made in Michigan. Our panels will be shipped all over
17 the United States, Canada, and around the world
18 eventually.

19 I'll give you a example. We are working
20 with Cherryland Electric to create a new and innovative
21 energy model; you heard a little bit about it earlier.
22 This energy model is called Community Solar, and with
23 Cherryland, we have gone live as of yesterday, there are
24 the beginning of panels that folks that don't have a
25 solar site, or don't have the economics to get involved

1 in a big solar array, or just don't have the economic
2 ability to do that, they can buy one panel, two panels or
3 ten panels. This is a first for Michigan, and we will be
4 excited to see models like this throughout the State.
5 I'd ask the panel here and our legislators to find ways
6 to break down the regulatory barriers so our municipal
7 power companies and our rural cooperatives can and will
8 be able to do projects like this.

9 Michigan was ranked tenth in creation of
10 renewable energy and jobs in the United States. Our
11 industry grew at 13.2 percent. I would ask you, who's
12 growing faster than that?

13 Thank you for this opportunity to share
14 our commitment, goals and accomplishments with you, and I
15 truly hope that the Governor and the State of Michigan
16 will embrace all forms of clean, safe and abundant
17 energy, and proactively find ways to reduce regulations
18 and barriers and help us create energy jobs in Michigan.
19 Thank you.

20 KEN WIEBER: Good afternoon. My name is
21 Ken Wieber, I'm from Fowler, Michigan, where I operate a
22 100-cow dairy/cash-crop farm with my brother.

23 The dairy industry today, for those of
24 you not familiar, is a 24/7 operation, and we have become
25 highly automated; thus, we require not only an

1 inexpensive source of electricity, but also a reliable
2 one.

3 And consequently, I cannot help but
4 notice what is currently happening in Europe, especially
5 Germany. Because of power fluctuations and brownouts due
6 to wind power, heavily automated German companies are now
7 forced to install expensive instant-on backup power, or
8 move their factories elsewhere. If they move, do you
9 suppose they'll come to a State that is making the very
10 same mistakes?

11 And what of our own industrial base?
12 They will have to make the same decisions. Should they
13 stay and pay, or leave, or will they even come here at
14 all?

15 I find it very telling that Europe is now
16 stepping away from their renewable standards.

17 I guess what I'm saying to our
18 representatives and to Governor Snyder is this: Your
19 decisions have long-term repercussions. Now, you may be
20 able to score some additional environmental donations to
21 your reelection campaigns, and you can look good in front
22 of the cameras by kissing the green energy baby, but out
23 in the real world, there will be consequences. Not only
24 will we see higher electricity rates and lost jobs, but
25 in the real communities, we will be forced to tolerate

1 these turbines, and there will be abandoned homes and
2 lost quality of life.

3 I would like to respectfully ask Mr. Voss
4 in his next survey to please ask the question: Would you
5 sacrifice your home for renewable energy? If this meant
6 we could shut down a coal plant or two, then maybe you
7 could claim this would be worth it, but you can't.

8 As a dairy farmer, I have already had to
9 absorb the additional costs of ethanol in my feed costs.
10 I can't help but wonder, what else will you ask of us?
11 Should I hook up a yolk of oxen to the front of my
12 400-horse tractor and call it green? Just think of the
13 jobs it would create. I guess maybe I better be careful
14 what I say, the oxen lobby might get someone to subsidize
15 it, and who knows, after 10 or 20 years, it could be a
16 self-sustaining industry.

17 Sounds silly, right? Well, that's what
18 you're asking of our utilities, to integrate an
19 expensive, intermittent, and unreliable power source onto
20 a modern grid, a grid that can already handle our present
21 and future demands.

22 I'm asking our legislature to please let
23 the utilities do what they do best; deliver a cheap and
24 reliable source of power to our industries. Thank you.

25 STEVE BAKKAL: Thank you. Our next four
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1 speakers, this one is, there's two names on here, so I
2 think it's one, one person can state their position,
3 either Dave Wingard or Bor Cassidy. Father Ciprian
4 Streza, Brian Johnson, and Jim Carruthers, please come
5 up.

6 DAVE WINGARD: Good afternoon. My name
7 is Dave Wingard, I'm from TrueNorth Community Services,
8 and I appreciate the opportunity to speak to you this
9 afternoon.

10 TrueNorth currently provides low-income
11 heat and energy assistance to a 34-county region in
12 northern Michigan. This region is characterized by
13 several things that are important to energy: One is low
14 population density. And this is important because where
15 you have low population density, you also have limited
16 access to less costly fuel sources.

17 Another characteristic of the area that
18 we serve is higher poverty rates. The dark red counties
19 in this slide represent counties that have poverty above
20 18 percent. When you have low access or limited access
21 to lower cost fuels and higher rates of poverty, you have
22 vulnerable populations.

23 One of the realities we see, that as
24 energy costs rise, a greater percentage of a household's
25 income is needed to pay for energy resources. From 2001,

1 in the blue bars in the graph, through 2012, in the green
2 bars, at different income levels you can see what the
3 percentage of a household -- of household is required
4 just to cover energy costs.

5 This slide represents what we've observed
6 so far in this year's grant. The purple is propane and
7 the red is natural gas. So we're seeing about 50 percent
8 of the low-income heat and energy we provide comes from
9 deliverable fuels.

10 This graph represents the percent of
11 households using propane in each county. One of the
12 highest is Lake County, which is over 50 percent;
13 Kalkaska is over 40 percent; and over half the counties
14 are greater than 20 percent.

15 This is a relative cost per million Btus
16 of natural gas, propane and electricity. So you see that
17 using propane for heat is much more costly than natural
18 gas.

19 And these are the points that I wanted to
20 leave with you. Northern rural Michigan is highly
21 dependent on higher-cost deliverable fuel energy sources.
22 High rates of poverty in rural northern Michigan increase
23 the impact of its high-cost energy source. Rural
24 Michigan needs effective and efficient solutions to
25 ensure the safety of vulnerable residents.

1 Whatever solutions we come up with in the
2 future really have to include consideration for this
3 portion of Michigan as well, not just urban areas or
4 areas that have access to lower-cost fuel sources. Rural
5 Michigan needs a voice and needs effective advocacy to
6 keep this point in front of the legislature. Thank you.

7 BRIAN JOHNSON: My name is Brian Johnson,
8 I'm with E3 Energy Service Company out of Traverse City.
9 Thank you for this opportunity, first of all.

10 My topic today is in response to Question
11 No. 16: Energy efficiency and commercial and
12 multi-tenant buildings. By improving the energy
13 footprint of these buildings, we will guarantee that
14 Michigan will be able to compete in both the national and
15 global markets.

16 Today, in Michigan, we find ourselves
17 playing catch-up in the understanding of how buildings
18 use energy. When most of the buildings were built,
19 energy use was not a high priority because energy was
20 cheap and interesting architecture was one of the most
21 sought-after components in the building process.

22 It became necessary to look at buildings'
23 operating systems with a scientific approach, and this
24 has happened. Newer construction in the last ten years
25 has been driven by the desire of building owners,

1 architects, engineers, and contractors to work together
2 to design and construct more sustainable buildings.
3 Further, these builds need to be recommissioned every
4 five to seven years.

5 The rebate process has been a huge
6 success, with large rebates for upgrading lighting. In
7 many cases, reduced consumption has resulted in paybacks
8 in less than two years. But this is only a small part of
9 the work that needs to be done with building
10 infrastructure to reduce operational costs. Building
11 owners want the same return on investments when upgrading
12 their HVAC systems as they receive through upgrading
13 their lighting systems. Unfortunately, due to the
14 initial costs of the HVAC equipment, these very quick
15 paybacks are not achievable. However, considering the
16 long life of the products, the benefits to the health of
17 the occupants and the environment, HVAC equipment
18 upgrades are a very important part of sustainability.
19 Also, because the engineering costs associated with
20 designing or redesigning HVAC systems are much higher
21 than lighting systems, owners are unable to fit these
22 costs into their budgets. For these reasons, greater
23 focus needs to be placed on creating more rebates and
24 incentives for HVAC retrofits. In addition to rebates
25 and incentives for retrofits, I would like to recommend

1 that an incentive be introduced to require professionally
2 engineered HVAC system design. By requiring a
3 professional for the design, it will give a higher rate
4 of success and better return on investment.

5 In closing, HVAC systems are evolving
6 rapidly. In the last 10 years, the efficiency of many
7 boiler systems has increased 15 percent or more, and many
8 other major components of the HVAC systems have also seen
9 increases within the same range. But in order to take
10 advantage of this recent rise in efficiency, all of the
11 components must work together in a well-orchestrated
12 manner. If the HVAC design or redesign in a retrofit
13 application is not well thought out, these high-
14 efficiency products will not achieve the potential
15 savings; and in some cases, if misapplied, may damage the
16 equipment or achieve little or no savings. With all this
17 in mind, I suggest that the design by a professional
18 engineer be a requirement for all projects submitted for
19 rebate and incentive applications. Thank you.

20 JIM CARRUTHERS: Thank you, Commissioner
21 Quackenbush and Director Bakkal, for this opportunity to
22 speak before you today. My name is Jim Carruthers, I'm
23 currently a city commissioner here in Traverse City and a
24 board member for Traverse City Light & Power, a publicly
25 owned municipal utility. These are my personal comments.

I'll be speaking broadly to Renewable
Question 3: Why 2012 standards continue to be achieved
at and beyond 2015; and Question 34: Are other states
making these standards?

It is appropriate that we are gathering
today, April 22nd, to discuss clean energy opportunities
on Earth Day, a day the world comes together to focus on
our living planet and to support our clean air and water
that surrounds us.

Renewable energy can help meet critical
national and state goals for fuel diversity, price
stability, economic development, and improving our
environment, public health and energy security. In
addition, survey after survey shows that Americans
strongly favor clean renewable energy sources and
national policies to support them.

State leadership has demonstrated that
the renewable portfolio standards can reduce market
barriers and stimulate new clean energy markets, which
has driven the clean energy economy. It has also allowed
utilities to work to get toward grid parity, the
levelizing of costs that is less than or equal to the
price of purchasing power from the electricity grid.

Our State commitment of ten percent is an
excellent start, but a stronger renewable standard should

1 now become a cornerstone of energy policy, which bottom
2 line can created needed jobs in our State.

3 I'd like to point out that four years ago
4 Traverse City Light & Power had a renewable goal of 30-
5 percent renewable by the year 2020, and now exceeds the
6 State standard of 10 percent at 14-percent renewable
7 currently.

8 29 states and Washington, D.C., currently
9 have adopted renewable energy standards which have
10 doubled the amount of renewable energy capacity in the
11 United States.

12 By 2025, new renewable energy production
13 from all state standards will reduce annual carbon
14 dioxide emissions by more than 183 million metric tons.
15 By example, this level of reduction is equivalent to
16 taking 30 million cars off the road or planting 40
17 million acres of trees on an area the size of Washington
18 State.

19 The Colorado State Senate will soon pass
20 Senate Bill 252, increasing the State renewable standard
21 from 10 percent to 25 for the rural electric
22 cooperatives. Colorado was the first state to create a
23 renewable standard back in 2004, and in 2007 they
24 increased it by 20 percent, and is just one of the states
25 looking at expanding their renewable portfolios. In

1 2010, Colorado Governor Bill Ritter signed House Bill
2 1001 into law expanding Colorado's standard by 30
3 percent. Between 2005 and 2010, the clean technology
4 sector in Colorado grew by 32.7 percent, and now has over
5 1,600 technology companies employing over 19,000 workers,
6 fourth in the nation and the only sector to grow in
7 Colorado.

8 So increasing our renewable standard in
9 Michigan could also bring benefits, such as needed jobs,
10 energy security, and clean air to Pure Michigan. I'm
11 sure you have seen the great efforts our Michigan
12 utilities have made as you travel through our great
13 state.

14 States all across the great country of
15 ours are learning together to be greener. I hope you
16 will keep Michigan --

17 (Inaudible due to audience applause.)

18 Please tell Governor Snyder to consider
19 increasing our renewable standard. Ten percent is not
20 enough. Thank you for this opportunity.

21 STEVE BAKKAL: Thank you. Our next four
22 speakers -- I do ask, please slow down for the court
23 reporter.

24 Our next four speakers are Elizabeth
25 Dell, Clay Kelterborn, Valerie McCallum, and Lisa
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1 DelBuono, please come up. Clay Kelterborn. Valerie
2 McCallum. Lisa.

3 LISA DelBUONO: And I have a PowerPoint.
4 First, I'd like to thank you, Commissioner Quackenbush
5 and Director Bakkal, for the opportunity to express my
6 opinions here today. My name is Lisa DelBuono, and I'm a
7 surgical pathologist who has the great privilege to live
8 and practice locally.

9 I come here today as a mother who is
10 deeply concerned about the health of the planet and how
11 that might impact our children's future.

12 As one who diagnoses cancer on a daily
13 basis, I understand the fragility of life. Scientists
14 agree that 350 parts per million of CO2 in the atmosphere
15 is a safe upper limit to sustain life on our planet. We
16 are currently at 393.84. I couldn't get -- it's rising,
17 and it continues to rise. This slide only says 392
18 because it's rising that quickly.

19 Burning of fossil fuels releases carbon
20 dioxide into the atmosphere. No other industry is
21 allowed to release its waste products unchecked. If we
22 continue as we have been, the prognosis of our living
23 planet is grim. That is why it's critical to move to
24 renewable energy sources and improve energy efficiency as
25 quickly as possible.

1 You asked, "How would a carbon tax impact
2 the cost of new energy generation in the future?"

3 Currently the fossil fuel industry is
4 unaccountable for the damage it does to our society in
5 the form of carbon emissions and its impact on human
6 health and climate.

7 Even conservative economists agree a
8 carbon tax would serve to level the playing field and
9 create incentives to move towards renewable forms of
10 energy.

11 As suggested by the Citizens Climate
12 Lobby -- I'm sorry. As suggested by the Citizens Climate
13 Lobby, for which I am a volunteer, a revenue neutral
14 carbon tax is one that would tax fossil fuels at the
15 first point of sale in the range of \$15 per ton, and
16 increase annually \$10 per ton. This would lead to a
17 reduction in CO2 emissions to 30 percent below 2005
18 levels in about a decade.

19 Importantly, the tax would be revenue
20 neutral, meaning that the revenue generated from taxing
21 the carbon-based industries would be equally divided and
22 given back to the people in the form of monthly and
23 yearly dividends. This would protect low- and middle-
24 income families from increased carbon-based energy costs
25 until the transition to renewable energy is completed.

1 It would provide -- it would also produce incentives to
2 consumers to move toward clean sources of energy, and it
3 would do this without growing the size of the government
4 and without direct subsidies.

5 Given Michigan's history as a world
6 leader in the automotive manufacturing, it is uniquely
7 situated to lead the way in the clean energy race. A
8 carbon tax would provide the necessary incentive.

9 We are lucky to live in such a beautiful
10 state. For the sake of our workers, our economy and,
11 most importantly, our children, it is critical that we
12 move toward clean forms of energy immediately. A
13 revenue-neutral carbon tax is the ideal bipartisan way to
14 facilitate that process.

15 CLAY KELTERBORN: My name is Clay
16 Kelterborn, I'm from Huron County.

17 Our area has been designated I guess as
18 the model for the State on wind development, and I can
19 honestly tell you that when we have peak demand needs,
20 when it's 90-plus degrees and there's no wind blowing,
21 those turbines aren't blowing, they're not moving,
22 they're not generating any electricity. It seems to me
23 it's a very costly, inefficient way of getting to what
24 we're trying to achieve.

25 We need to slow down and analyze what our
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1 policies are doing that we're trying to institute. I
2 think we need more innovation other than wind. We need
3 some different type of home generation incentives.

4 I had a comment regarding the surveys
5 that the gentleman from Michigan Land Use Institute was
6 talking about: People are willing to pay more for
7 renewables. I've honestly talked to people who are
8 willing to pay more in taxes so that they don't have to
9 live within the development of a wind park.

10 I understand that we're talking about
11 good energy policies; reliable, clean, affordable energy
12 and efficient. Why has Public Act 295 been turned into
13 something that we have to focus primarily on wind
14 development? I think that that's wrong.

15 I have been around the State, I've talked
16 to people, I've been outside the State, and I can
17 honestly tell you that there are people that are living
18 with problems. Not a week goes by that I don't talk to
19 someone or hear about someone that has problems with wind
20 development.

21 I have something that's kind of near and
22 dear to my heart, and it's a personal issue I'm dealing
23 with. Across the road from where my mom lives, there's a
24 proposed 60- to 70-wind turbine development being
25 proposed. Both of her medical doctors, her primary care

1 physician and her cardiologist, have sent letters to the
2 wind developing -- the wind developers and stated that
3 these will pose serious repercussions for her health.
4 The response we get back from the wind developers states
5 in part, and this is from Detroit Edison: DTE is not
6 aware of any scientific or medical support for your
7 current assumptions that some aspect of operation of a
8 wind turbine may in some way potentially impact
9 Mrs. Kelterborn's future health or her healthcare needs.
10 Therefore, DTE respectfully disagrees with any of your
11 health-related concerns that pertain to wind energy, as
12 well as your recommendations regarding turbine location.
13 That came from the manager of the wind development
14 segment.

15 All we keep hearing is we need to hurry
16 up and do something. Haste makes waste.

17 VALERIE MCCALLUM: Hi. I'm Valerie
18 McCallum, I'll also from Huron County.

19 I am concerned also with the development
20 of wind turbines in our county and anywhere else in the
21 State. We are a designated wind energy zone by the State
22 of Michigan Public Service Commission, and they have
23 projected 2,800 turbines to be put into this zone, which
24 includes all of Huron County, part of Tuscola, Bay and
25 Sanilac. They are currently building a transmission

1 loop, a very expensive, costly transmission loop that we
2 are all paying for. That loop is going to have to be
3 used; I just hope that it's not used for wind turbines,
4 any more of them.

5 We have a landfill in Huron County that
6 just requested a 40-acre expansion. If we're going to go
7 with renewable, let's use sources that will clean our
8 environment rather than pollute it further with blighted
9 landscapes full of gigantic wind turbines where people
10 can not live in their homes.

11 In the Ugly situation, the people that
12 filed the lawsuit and settled, they are building bedrooms
13 in their basement. How many people in this room would
14 want to have to move to your basement to sleep at night?
15 I know I wouldn't.

16 So I hope the State will consider that
17 there are other renewable sources that would serve the
18 people of Michigan better. And energy efficiency would
19 also be a much better option than building more turbines.
20 Thank you.

21 STEVE BAKKAL: Our next four speakers are
22 Kate Madigan, Linda Wood, Charles Beale, and Bill Hansen.

23 KATE MADIGAN: Thank you, Commissioner
24 Quackenbush and Director Bakkal. My name is Kate
25 Madigan, I work for the Michigan Environmental Council.

1 We are an organization of 65 member groups working in
2 communities across the State, and I'm based here in
3 northern Michigan.

4 I would like to add remarks to -- our
5 policy director, James Clift, presented at the February
6 event in Lansing; I'll add remarks talking about overall
7 Question 1: What information do policymakers need to
8 consider in order to make good energy decisions?

9 To develop a statewide energy plan, we
10 first need to come to a collective agreement that we
11 share the same goals. If we all agree on the same goals,
12 it will make investment decisions and policy decisions
13 going forward easier to make.

14 These are some goals that we think we can
15 all support. And a prime example of how we can better
16 serve ratepayers and address a number of these goals is
17 through improving the integrated resource planning
18 process, or the IRP process.

19 An IRP provision was included in Public
20 Act 286 of 2008, it created a process to review major
21 utility investments before they are made, and to fully
22 evaluate alternatives to these investments, including
23 energy efficiency and renewable energy. It is to make
24 sure that investments are the most prudent and reasonable
25 means of meeting that power need.

1 While the IRP provision was a good step
2 toward resource planning, has been -- it has significant
3 limitations. Specifically, the IRP is only triggered to
4 review major utility investments of \$500 million or more,
5 and the IRP exempts environmental upgrades. So expensive
6 projects to install pollution controls in old power
7 plants do not require this process. As a result, it has
8 only been triggered once in five years, and this is
9 hurting Michigan ratepayers.

10 To illustrate this point, utilities are
11 making significant investments that include upgrades to
12 old coal plants that could exceed \$4 1/2 billion over the
13 next ten years. In fact, they are currently seeking
14 authorization to spend \$2 1/2 billion, which will be
15 passed along to ratepayers as rate increases. This
16 significant level of investment deserves the scrutiny of
17 an IRP; but as I have said, this is not happening.

18 Finally, let me point out that Michigan
19 can learn from examples of more effective IRP processes.
20 Many states require long-term planning that do not have
21 the \$500 million investment trigger and do not exempt
22 pollution control projects. So instead of being
23 triggered by proposals to build new powers plants, IRPs
24 in other states simply require comprehensive plans
25 looking 10, 15 or 20 years out, and that are updated

1 regularly to ensure the long-term reliability of
2 delivered energy at the lowest practical cost. Good IRPs
3 engage a variety of stakeholders and include public
4 input.

5 Any IRP process for Michigan should also
6 consider the large pollution-related costs to public
7 health and natural resources. And while these do not
8 appear on our utility bills, they are very real costs
9 that we end up paying.

10 So by having a more effective IRP
11 process, the great advantages of energy efficiency and
12 renewable energy will be evident as utilities evaluate
13 all the alternatives fairly. It will bring more jobs to
14 our State, lower our energy prices, and will reduce
15 pollution.

16 Thank you for the opportunity to share
17 these views.

18 LINDA WOOD: I'm Linda Wood, I live in
19 Joyfield Township of Benzie County.

20 And I started thinking about what's going
21 to happen. There's been some discussion recently about
22 the Elmwood turbine. As you can tell, it was the first
23 in Michigan, it cost 785,000, and according to the
24 article in the newspaper, the cost has not been
25 recovered. It was repaired in January at the cost of

1 38,000, and it broke two days later. April 17, they
2 repaired it at a cost of 37,000, and they say if it
3 operates another 10 years with no low, no major repair
4 costs, it still will not pay for itself. And it's an
5 obsolete model, parts are not readily available. This
6 was the conversation, article and then a conversation
7 with Tom Olney, who is a (inaudible) turbine. And in the
8 article, the newspaper said: It's like an old car. At
9 some point you have to make the decision you can no
10 longer afford to make repairs ... when you do something,
11 something else will go wrong. Pat McGuire, Utility Board
12 Chairman, Traverse Light and Study [sic].

13 A case -- a study is being done to decide
14 the future of the turbine; possibilities include
15 installing a new generator, new parts, or possibly
16 demolition. Traverse City Power & Light is an
17 interesting -- you know, they're a community-based,
18 community feel-good utility, so they have a stake in the
19 community.

20 According to a report, this is pulled out
21 of a DTE report, they're wanting them to justify their
22 depreciation schedule, and here was the average life of
23 parts. The tower, they're saying after 25 years, it's
24 going to need some shoring up. Blades, maybe it will
25 last 20 years. Gear box, maybe ten years. And if I'm

1 understanding the price for a gear box, it's in the
2 hundreds of thousands of dollars. Generator, 20 years.
3 That is a heck of an expensive part. And other parts
4 they're saying have ten years.

5 Now, fear of abandonment. What's going
6 to happen? They're not able to obtain the parts; not
7 financially feasible to repair; owners filed bankruptcy.

8 Decommissioning. First and foremost,
9 corporations are in the business of making profits.
10 Decommissioning: Very expensive, technically difficult,
11 value of materials recovered is not great. Usually
12 there's no bond, no promise, no bondable promise by the
13 turbine owner; and many sites are an LLC, so they can cut
14 ties, file bankruptcy, and disappear, and leave the
15 landowner with the property.

16 Here's some other things that just kind
17 of hit me. You know, everybody's presenting all these
18 fancy figures. Figures can lie and liars can figure.
19 And if you torture the data long enough, it will confess
20 to anything. So that's something I'd like to keep in
21 mind.

22 Now, here's just an interesting little
23 thing. 14,000 abandoned turbines. As turbines become
24 obsolete, repair is not feasible. There's going to be
25 more. Like an old car, sometimes you just don't fix it

1 up. And corporations make decisions based on the bottom
2 line. If they're not profitable, they'll be eliminated.

3 And the future. Look at tax credits and
4 depreciation structure: Does it make sense? Do the
5 turbines reduce the demand for the backup supply? Is it
6 cost-effective? And I think we need research subsidies
7 for research and development for future sustainable
8 energy production. Okay.

9 CHARLES BEALE: Hi. I'm Chuck Beale, I'm
10 from Frankfort, Michigan.

11 Most energy forums typically add nothing
12 new: They misdirect our attention, they sidetrack our
13 most noble intentions, and they limit the very questions
14 we even think to ask.

15 So what questions should we be asking
16 about our potential energy woes? The first and foremost
17 questions should be: Are we treating the symptoms or are
18 we providing solutions to cure our problem? And exactly
19 what is the problem and the root cause?

20 The Department of Energy by the year 2030
21 says the world's energy consumption will go up by 50
22 percent. Nearly 50 percent of that energy consumption
23 will be through manufacturing. While we may be able to
24 include renewable energy as part of the pie that goes
25 into supplying that demand, renewables can at best only

1 provide a small intermittent portion.

2 As a matter of fact, the U.S. Energy
3 Information Administration just last year designated wind
4 as intermittent, can not be controlled by the operator,
5 and is dependent on weather, so it will not correspond to
6 the dispatchable duty cycles. As a result, the levelized
7 costs are not directly comparable to those of other
8 technologies. Department of Energy further states that
9 the energy demand is rising seven times greater than all
10 renewables combined. With that being said, the demand
11 deficit will come from dispatchable fuels, mainly fossil
12 fuels.

13 Industrial wind is not the panacea it's
14 made out to look like. Energy giants understand that.
15 And even if we were to quadruple industrial wind energy,
16 the increase would hardly impact the fossil fuel demand.
17 Their seductive tales of industrial wind turbines foster
18 the impression that with a few technical upgrades, we
19 might just sustain our current energy trajectory without
20 consequence.

21 The media as well as the politicians lull
22 us into dreams of clean energy, and government agencies
23 meant to protect the citizens well being are diverted
24 because big money serving well-funded special interests
25 politically and socially subjugate the citizens.

1 Industrial wind wastes time and money
2 that could be used to reduce greenhouse gas emissions and
3 save rather than cost us money. It does nothing to
4 encourage conservation, and most likely, based on today's
5 propaganda of it being free and clean, will promote
6 wasteful use.

7 So let's go back to the question: What
8 is the problem, and what is the root cause? We have
9 heard spoken by our presidents, past and present, we have
10 heard economists talk about it and what method will work
11 best. Big government, big energy and big business thrive
12 on it.

13 Folks, we don't have an energy problem;
14 we have a consumption problem.

15 To spend our way out of the recession and
16 grow our economy through conspicuous consumption enslaves
17 us. In order to maintain growth, we will to have to
18 continue to exploit the earth's natural resources and its
19 inhabitants to the point that we have overshot earth's
20 capacity. We have two paths to be taken: Keep living
21 beyond the earth's means, or we can choose to proactively
22 elect developed alternatives to existing supply and
23 demand-based policies, policies that entice citizens and
24 business alike to consume less and enjoy the benefits of
25 doing so.

1 So what policy should Michigan look at in
2 order to be a leader? Policies that encourage durability
3 in lieu of the current corporate-planned obsolescence;
4 policies that encourage productive and --

5 (Inaudible due to audience applause.)

6 -- polices that double down inefficiency
7 programs by local policies. And there's a few more.
8 Thank you.

9 CHARLES WEAVER: Hi. My name is Charles
10 Weaver, and I'm from Kalkaska. I want to thank the
11 Commissioner and the Director for allowing us to have
12 public input here today on this pretty critical problem
13 to the State of Michigan.

14 I'd also like to echo some of the
15 comments the last speaker made. I was able to hear most
16 of the end ones.

17 I want to address the Question No. 4 on
18 the renewables. And I'm more -- not so much on the cost
19 of the particular type of renewable energy source, but
20 more to the costs of a particular type of nonrenewable
21 resource, and that's natural gas, and why we should be
22 focusing on rapidly increasing our manufacture and use of
23 various renewable sources.

24 If you look at natural gas production in
25 Michigan as a bridge type of energy source, you need to

1 dig or drill down a little deeper below the surface to
2 discover what the hidden externalized costs of the
3 production of natural gas. For instance, water
4 withdrawal. Also, the potential contamination of the
5 ground water and the storage, and the methane released
6 into the air on these production sites, plus the carbon
7 footprint of the numerous transportation parts bringing
8 the water, the fracking fluids in and out. These hidden
9 costs, there's more, there's more that aren't as sure,
10 but you have, again, it's the ground water contamination.
11 We see it in industrialization of our recreation areas
12 and our State forests, and the health risks to the
13 workers.

14 What I would push for is an increased
15 production and use of renewable sources to help eliminate
16 this potential problem. And I would like to see that
17 done in Michigan rather than sending the profits of the
18 natural gas industry off to Houston and Calgary. Thank
19 you.

20 BILL HANSEN: I'm Bill Hansen, I'm
21 representing NMEAC, Northern Michigan Environmental
22 Action Council, and I would appreciate if you'd save your
23 applause for the next speaker, since I have no vanity at
24 all.

25 The board of directors of NMEAC, one of
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1 the oldest environmental action organizations in northern
2 Michigan, would like to express our thanks to all of you
3 and to Governor Snyder for making -- calling our
4 attention to this very important issue.

5 The bottom line -- we've got to cut to
6 the quick here because, you know, we got to be quick.
7 The bottom line is we have to get off of fossil fuels.
8 That's what everybody has been hinting around, but not
9 really hitting on, but that's our real problem, to get
10 away from fossil fuels. And we've been traveling down
11 this luxurious highway over the last couple centuries
12 really that has been paved with our scientific
13 development of fossil fuels. Now we're realizing that
14 that highway, luxurious as it may have been, has some
15 dead-end science along the way, and we're heading up,
16 heading toward a dead end in this road.

17 And the whole matter of how we're going
18 to solve these problems, because there are red flags all
19 over the place, like the dilemmas of climate change and
20 weather disturbances, air and water pollution, resulting
21 water shortages, all these problems are not going to go
22 away until we get off of fossil fuels. So science is
23 not -- now even telling us that our addiction to fossil
24 fuels is also going to not just end at a dead end, but
25 also maybe there's a cliff at the end of the road, and if

1 we go off this cliff, off the edge of this cliff, we may
2 end up falling into a chasm of which there is no way out,
3 nowhere to turn.

4 Fortunately, you know, you heard a lot
5 about different options of renewable power sources and,
6 therefore, NMEAC would like to offer these, advocate
7 these suggestions.

8 No. 1. That it may be made a
9 State-supported policy to inform the consuming citizenry
10 of the full and true long-range cost of the continued use
11 of fossil fuels rather than based on a market system and
12 a cost analysis based on current market prices. This
13 would mean that the cost basis have to include all
14 externalities, such as health costs, care costs and
15 et cetera from burning fossil fuels.

16 Secondly, the immediate cessation of any
17 public subsidies for the further development of both the
18 securing and consumption of fossil fuels.

19 And finally, thirdly, provide sustainable
20 energy --

21 (Inaudible due to audience applause.)

22 Thank you.

23 STEVE BAKKAL: Thank you. We have now
24 gone through 30 speaker requests. We have an hour left,
25 so we should be able to get through another 20. Most

1 likely if you submitted your card after the break, unless
2 there's a lot of people that have left, it's going to be
3 a low probability that we'll even get to you.

4 But the next four speakers are Matthew
5 Schoech, June Thaden, Elizabeth Rosan Kirkwood and James
6 Olson.

7 MATTHEW SCHOECH: Commissioner
8 Quackenbush, thank you for this forum this afternoon.
9 Please convey my comments and those here today to our
10 Governor, to our legislature.

11 I start out by asking everyone to
12 question the great unquestionable. The unquestionable
13 question is: Is anthropocentric global warming climate
14 change model the one to follow? Most of the speakers
15 that are gathered here today are making that assumption
16 that it is manmade global warming that we're trying to
17 cure with an energy policy, and yet there has been no
18 concrete scientific evidence; there has been differences
19 of opinion, and lately some of that opinion from former
20 climate change scientists, including one of them who had
21 a book written on endorsing anthropocentric global
22 warming change, has reversed himself. I mention that
23 because much of the solutions offered here today,
24 especially those that deal with public subsidies to
25 renewable or alternative energy mandates and production,

1 are not very efficient, and that has been one of the main
2 contentions by a lot of people is is that if we could
3 make something really efficient. Well, you can make
4 things efficient. But is it based on fact, is it based
5 on truth?

6 And the reason I question that is is that
7 I know and hear, they have brought up the concept of
8 fracking, hydraulic fracking that the oil and gas
9 industry uses today to liberate more gas for our energy
10 use. And incidentally, when we talk about energy, I
11 think all energy is energy. I don't look at energy like,
12 oh, this -- can we tell by looking at it if this is clean
13 or unclean energy? That kind of blows my mind.

14 The reason I mention all this is as kind
15 of a background. Most of you remember about one year and
16 two months ago, in the very beginning of March, we saw
17 some dramatic climate change in Michigan, didn't we? In
18 fact, it was throughout the whole United States. Some of
19 the warmest temperatures, and I think one of the earlier
20 speakers even mentioned that, that the climate changed so
21 radically, it was one of the warmest three-month periods
22 in the history of the United States. And I agree. See,
23 I also know that we do have global warming, but we also
24 have global cooling, and we call that weather patterns.
25 Okay. But what influences the weather patterns? The

1 global warming theorists say that it's manmade. What I
2 saying is is that it is not manmade.

3 Back in March of last year, 2012, we had
4 an M-class solar flare hit the earth, and for a month
5 afterwards temperatures in the United States were
6 impacted. And if that hasn't impacted you, then maybe
7 you forget. Most of the weather people are, that we
8 watch on television don't mention that because they're
9 climatologists, they don't look to the outside source of
10 climate change.

11 When our polar ice caps melt and when the
12 polar ice caps melt on Mars, it's not anthropocentric
13 global warming. Thank you.

14 ELIZABETH ROSAN KIRKWOOD: Hi. I'm Liz
15 Kirkwood, I'm Executive Director of FLOW, which is a
16 water law and policy organization here in Traverse City.
17 We're dedicated to understanding the threats and
18 solutions to water in the Great Lakes, and we're focusing
19 our, on the nexus between water, energy, food and climate
20 change.

21 Michigan faces a watershed moment, an
22 opportunity to chart a new cleaner energy course that's
23 good for jobs, good for the environment, good for energy
24 affordability, and good for the water. To chart this
25 course, we first must recognize that our energy choices

1 profoundly affect our water and cause serious climate
2 change impacts.

3 Water is used and lost in energy resource
4 extraction, refining and processing, transportation, and
5 electrical power generation. By 2035, the amount of
6 water consumed for current energy production is projected
7 to double. During this same time, there will be
8 increasing water scarcity from pollution, waste, drought
9 and human-induced climate change.

10 Instead of a siloed approach to energy
11 decision-making, we must adopt a new vision that
12 recognizes this nexus between water, food, energy and
13 climate change. And to make this shift, we must view
14 water in a different light where water becomes the
15 starting point for everything we do. The recent U.S.
16 natural gas industry shale boom has reignited attention
17 on this nexus because it is dependent on massive water
18 withdrawals that becomes toxic waste water, never
19 returning to our hydrological system.

20 Additionally, Michigan's coal-fired power
21 plants are the State's single, largest single source of
22 heat-trapping carbon dioxide emissions, which contribute
23 to climate change by increasing lake evaporation and
24 causing our extreme low water levels in Lake Michigan and
25 Huron. And as you all know, look out there on the bay,

1 we hit record lows in January of this year, 26 inches
2 below average. The water levels issue is at the heart of
3 the Great Lakes, and Michigan's economy, energy and water
4 needs, social fabric, quality of life and environment.

5 We can not sit idle anymore; instead, we
6 must shift away from our dirty fossil fuel economy
7 towards one with a low-carbon, low-water footprint.
8 Shifting to renewables is the obvious energy choice and
9 addresses the root cause of receding water levels so we
10 do not jeopardize our current and future way of life.

11 The benefits of renewable energy are
12 clear: Affordable, clean, stable rates, Michigan job
13 generator, minimum water use, and protective of human
14 health and the environment. Michigan's already
15 witnessing renewable energy sources like wind becoming
16 more cost-effective and affordable compared to
17 traditional polluting sources.

18 In addition, Michigan should promote
19 energy efficiency and conservation in all sectors because
20 it's the cheapest, cleanest, and most quickly deployed
21 source of energy. We think Michigan can and should
22 become a leader in renewable energy. Based on its
23 innovative manufacturing traditions, we can compete with
24 other leading states that currently generate 20 percent
25 or more renewable power with excellent reliability.

1 Let's live up to our motto: Pure Michigan. Thank you.

2 JUNE THADEN: I'll stand tall. I'm June
3 Thaden, I'm a board member of NMEAC that Bill spoke for,
4 and I'm a grandma.

5 I'm here because I'm very concerned about
6 my adult grandchildren's children's future. What we do
7 now is going to affect our future. I'm very concerned
8 about climate change. We are causing it. Most of the
9 climate scientists in this country believe that, and
10 we're missing the boat if we don't believe it.

11 Hydraulic fracturing concerns me greatly
12 for these reasons:

13 Water. Drinkable water is a finite
14 resource. Here in Michigan, we must be protectors of 20
15 percent of the earth's fresh water. We must not do
16 anything to pollute or jeopardize the Great Lakes' water
17 quality.

18 Fracking uses quantities of water which
19 is forever polluted and will not return to the potable
20 water supply. Industry spokesman, Bill Stolzer, stated
21 at a town hall on April 16, 2013, that 5 million to 20
22 million fresh, usually surface, water is used for each
23 horizontal hydraulic fracturing well. Stolzer even
24 emphasized that this was one-time use of that water.

25 Some of the waste water remains in the
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1 fracked well, and who knows where it might escape to.
2 The waste water that escapes at the time of horizontal
3 fracking must be captured, transported and forced into a
4 waste disposal well, with consequences we don't really
5 know.

6 The oil and gas industry should fully use
7 the ground water assessment tools to show the cumulative
8 impact of the water withdrawal from an area. This
9 industry should not be exempt from the Clean Water Act,
10 or any other laws and regulations that others must
11 observe.

12 The oil industry already has five times
13 greater the amount of contaminants that the climate
14 scientists have agreed will cause temperature level on
15 earth where life becomes impossible. We can't let this
16 happen. We're stupid if we let it happen.

17 JAMES OLSON: Good after, late afternoon.
18 I am Jim Olson, I'm chair of FLOW. We heard from our
19 Executive Director, and the report has been submitted to
20 Commissioner Quackenbush and Director Bakkal. And
21 Commissioner and Director, we thank you for being in
22 Traverse City and listening to us now and working in the
23 future to have Michigan adopt a sound energy policy.

24 I want to make a few points to just
25 supplement what our director, Ms. Kirkland, mentioned,

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1 and hopefully highlight the bigger picture here.

2 We live on a planet that survives because
3 of a hydrologic cycle made up of the phases of water, and
4 water is the foundation of life, and if we don't put
5 water in the context, or energy policy in the context of
6 water, we will be undermining not only the tally of our
7 quality of life, but the very basis of our economy.

8 Let me give you one example. In
9 Colorado, in the spring of last year in Colorado, the
10 energy industry outbid the farmers for the water for the
11 first time in Colorado's history. That conflict is going
12 to appear elsewhere in the world. There is not enough
13 energy in the west -- or excuse me -- not enough water in
14 the west to support the energy and farming. That water
15 will have to come either from the Great Lakes or Canada.

16 Another thing that we have to be, pay
17 attention to is the fact that the low water levels, the
18 extreme levels we see right now are not just an anecdotal
19 incident, they are part of a pattern. If you look at the
20 loss of ice cover in the last ten years in the Great
21 Lakes' basin and right here in Grand Traverse Bay, and
22 you look at the precipitation curve, which is fairly
23 steady by the way, and also the evaporation curve, you
24 will see that the last ten years, and it is increasing in
25 acceleration, that evaporation is exceeding precipitation

1 and therefore resulting in low water levels, and that is
2 the result of climate change.

3 So the only way we can make a sound
4 decision in energy is to pay attention to water, the
5 hydrologic cycle in every part of the arc to assure that
6 water is maintained to protect the quality of life and
7 economy. If we do that, I assure you we will make sound
8 energy decisions, they will be appropriate, they will be
9 diverse, and many of the things that people have said
10 today will come to fruition. Thank you.

11 STEVE BAKKAL: Next four speakers are
12 Randy Smith, Jim Rowlett, Charles Cauchy, Alison Heins.
13 Randy. Jim. Jim. Charles. Alison.

14 Okay. We'll go on. Next four are
15 Heather Miller, Bill Latka, Guenther Lengnick, and Susan
16 O'Headon.

17 BILL LATKA: I'd like thank the Chairman
18 and the Director for having us all here in Traverse City
19 and listening to what we have to say.

20 My name is Bill Latka, I'm a resident of
21 Long Lake Township, outside of Traverse City, and I own a
22 film production company here in Traverse City. I'm also
23 a member of Cherryland Electric Co-op. The discussion
24 about building a proposed new coal-fired power plant here
25 in Rogers City will directly affect my family and me, and

1 that's why I'm here today.

2 I'd like to answer renewable Question No.
3 4, which is: What are the predicted costs of the new
4 energy generation by type in the future?

5 There are two costs I'd like to address.
6 The first is the cost of the fuel needed to operate a new
7 coal plant. First of all, Michigan couldn't mine coal,
8 of course; we get it from other states, and the money
9 spent on this coal is a huge expense that leaves our
10 State, and does absolutely no good for our economic
11 sustainability.

12 The purchase price of the coal is rising
13 rapidly because of rising costs of transportation,
14 explosives, wages, and geology. The thing of mining coal
15 is that companies go to the widest it seems first, and
16 that's the cheapest to get, and over time it becomes more
17 expensive to mine. We're seeing these effects in the
18 cost of coal. Here's a chart. I don't have a
19 PowerPoint, but you can see that coal costs are rising
20 over time; it's actually gone up 205 percent. This is
21 the cost of coal for Michigan has gone up 205 percent
22 between 2004 and 2011. And this upward trend is
23 projected to continue.

24 The MPSC said that energy costs related
25 to the construction and operation of the Rogers City coal

1 plant would increase residential energy costs by \$76 per
2 month per household, and that's a cost I'd like to avoid.

3 The second cost of coal I think is the
4 most important, it is to our health and well being.
5 Missing from the sticker price of coal are coal's major
6 impacts on ecosystems, human health, and economy. People
7 are sicked by the pollution of coal-fired power plants;
8 we're being heavily impacted by global warming from the
9 carbon dioxide that burning coal spews into the air; and
10 as taxpayers, we pay to subsidize coal and clean up its
11 aftermath.

12 Energy executives jump up and down about
13 the relatively inexpensive cost of coal compared to
14 renewables, but I'd like to point out that their math is
15 absolutely flawed. They don't pay for the disposal of
16 the waste product, which is CO2 and all the ill effects
17 of human and ecosystem health. These are known as
18 externalities. In a 2011 report by the Annals of the New
19 York Academy of Sciences on the full cost accounting for
20 the life cycle of coal, they find that coal generation
21 exceeded, it was between 9 and 27 cents per kilowatt
22 hour, with an average of 18 cents per kilowatt hour, and
23 that's not even accounting for the cost of the coal
24 itself. I think it's time as a State we look at these
25 externalities, and we have to take them into account when

1 we think about coal-generated power.

2 All this pressure to build an unneeded
3 costly coal plant in Michigan is delaying the urgently
4 needed transition to cleaner alternatives and
5 accelerating the climate disruption that's already
6 putting our communities at risk.

7 The Stone Age didn't end when we ran out
8 of stones. It's time to wake up and look at the horrible
9 situation we've gotten ourselves into from a cost and a
10 climate standpoint, and human health, and move out of the
11 20th century technology that's gotten us down this path
12 and fully embrace renewables and efficiency that don't
13 have a detrimental effect on our economy and our human
14 health. Thank you.

15 SUSAN WHEADON: Susan Wheadon, another
16 grandmother.

17 This is what renewable energy is not
18 about. It's not about gas explosions, oil spills, coal
19 mining accidents, using a million gallons of water laced
20 with chemicals, methane, that do not contaminate food or
21 soil. There is no heavy truck traffic and damage to
22 roads. They do not pollute the air, they are not about
23 huge subsidies going to fossil fuel industries or
24 politicians taking money from fossil fuel industries.
25 They are not about injection wells, flowback, compressor

1 stations, well pads, and earthquakes, and long-term
2 damage to the environment.

3 Michigan needs to be setting up the
4 infrastructure for alternative energy, not hydraulic
5 fracturing. We owe it to future generations to promote
6 clean energy. Thank you.

7 GUENTHER LENGNICK: Hello. My name is
8 Guenther Lengnick, I live near Pentwater.

9 And my message is really very simple.
10 Keep Pure Michigan pure. Make no mistake in the lake.
11 Keep the turbines out of the water.

12 It's interesting to note that in a
13 (inaudible) survey in Pentwater, nearly a hundred percent
14 of the people, of the merchants voted against placing
15 wind turbines in the lake, so I think there's a message
16 there. Now, if you have to put them on land, things are
17 not much better. They are too close to the occupied
18 dwellings, a thousand feet. That's very little. It
19 should be at least a mile, if at all. So there are
20 problems with those. There is another lawsuit going on
21 by affected people in Mason County and Summit Township
22 against the utility now because of their effect on
23 health. So it is not a panacea by any means.

24 The subject of fracking, it will come up.
25 There is an enormous economical pressure to generate

1 fracking. Michigan sits on a great big pile of shale
2 that can yield natural gas. But my advice is to
3 regulate, regulate, regulate. Don't do what Pennsylvania
4 has done; they really made a tremendous mess. There is a
5 Haliburton loophole that really allows the Clean Air Act
6 to be not observed. That can not happen. You must
7 regulate, regulate, regulate; sorry about that, it has to
8 be done, because the environment that fracking really
9 contaminates is enormous.

10 So what are my choices? Well, certainly
11 as we have heard here, energy conservation has to be
12 number one. And secondly, solar. It's clean, it's
13 quiet, it's effective; it's still expensive, but costs
14 will come down, and even in Michigan, we sometimes have
15 sunshine.

16 STEVE BAKKAL: Next four, Kim Laverty,
17 Michael Hayes, Matt Vajda, James Williams.

18 KIM LAVERTY: Thanks for the opportunity
19 to speak. Welcome to our state representatives and our
20 business partners who made the trip out here today.

21 I represent Enercom Energy. We're the
22 nation's leading alternative energy savings agency.
23 We're based in Bingham Farms, Michigan. I actually live
24 up here in Kalkaska County. We do business in other
25 states as well as Michigan. We're unique in that we rep

1 for multiple natural gas and electric suppliers of our
2 own choosing; this is how we obtain our clients the best
3 rates at a particular point in time. We're all about
4 rates.

5 In October 2008, legislation was passed
6 where only ten percent of DTE Energy and Consumers Energy
7 electric generation capacity could be made available for
8 competitive pricing. It was filled by August 12, 2009,
9 in the Consumers area, and DTE, December 9 in their
10 areas.

11 We at Enercom have over 1,000 business
12 clients in the Michigan electric queue, this is a waiting
13 list, the waiting list asking for the right to receive
14 competitive pricing. The total number's approaching
15 11,000. The lucky 10 percent that got in have a
16 competitive advantage; savings can run 35 percent or
17 more.

18 Consider this. When Michigan's sagging
19 economy, if you're a major manufacturer looking to open
20 or expand your business, you might consider locating in
21 Ohio versus Michigan if you can save 30 percent on your
22 electric costs. Michigan's electric costs are higher
23 than the national average and the highest of our midwest
24 neighboring states. The average Michigan rate's up 28
25 percent since the cap. Compare this to Illinois and

1 Ohio, which are deregulated states; Illinois rate's up 1
2 percent, and Ohio rate's only up 14 percent in the same
3 time period. We see this in the recent Detroit News
4 article. So allowing competitive pricing does work for
5 the electric providers as well as saving the end users
6 serious money.

7 Under the 2008 legislation, DTE and
8 Consumers Energy are required to keep the ten-percent cap
9 filled. I recently had a business client only about 20
10 miles up the road here in northern Michigan that was
11 released from the queue and they could take the
12 opportunity to receive Choice competitive pricing. I
13 obtained them a three-year fixed pricing, saving them
14 about \$40,000 over three years. We prepped the site,
15 hired a contractor to install the phone line that's
16 required by Consumers Energy; after all this, we
17 contacted Consumers Energy to come and connect the phone
18 line to the meter and recalibrate the meter. The offer
19 again was made and accepted. Consumers Energy now
20 replied it was an error, a mistake on their part, we have
21 no more capacity available, and they're not honoring
22 their offer. Calling my client about this was not a call
23 I enjoyed making, of course.

24 Let's talk about DTE energy now. Did you
25 know that DTE acts as an alternative electric supplier in

1 the State of Ohio, but their own DTE Electric customers
2 here in Michigan are not allowed the same privilege?

3 In the State of Michigan, we need to end
4 the monopoly that DTE and Consumers Energy enjoy and
5 allow Electric Choice to happen, and quickly. Thank you.

6 JAMES WILLIAMS: I'm with Enercom, too,
7 with Kim Laverty, and we also sell a product for DTE and
8 all the other states that they're in, and I have one
9 factory right now that, if I could sign them up, just to
10 save \$250,000 a month, and they said they can rehire all
11 of the people that they laid off if they could do that,
12 and that's all I want to tell you.

13 It's time to look at who's got hands in
14 pockets, and I think DTE and the government are hooked
15 together because all the other states do not have any
16 caps at all. We can sell 24 hours, 7 days a week in any
17 of the other states, and I'm a door-to-door salesman, and
18 I have to drive and pay \$4.00 a gallon for gas and use a
19 motel and everything else in other states to make money
20 living where I can make my own living right here.

21 STEVE BAKKAL: Next four are Bob Jones,
22 Bill Queen, Marcia Curran, Jeri deRoi, Gary Dillon.

23 BOB JONES: Thanks for sticking around.
24 My name is Bob Jones, I have a private business, I've
25 been doing this for 50 years. Basically what I do is I

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1 work for communities to attract industry and business,
2 and I work for businesses to find communities that are
3 profitable.

4 When I first started out back in 1962,
5 there was a main, the main type of work I did was I
6 worked for automobile companies, parts companies up north
7 here, and other assembly companies, boat companies, and
8 appliances and things like that. The last few years --
9 and right now I'm working for 4 different communities,
10 I've worked for 10 in the last 50 years, I'm working for
11 4 now, and I'm also working for 5 private companies. And
12 I started a new company up three years ago because I had
13 so many requests to find profitable places to go that I
14 had to add two more people.

15 Here's the two common denominators today
16 in looking for places for jobs, are one, low electric
17 rates, and I'm talking about four cents a kilowatt hour.
18 There are places where you can get electric for two and a
19 half cents a kilowatt hour, three cents, but that's the,
20 pretty much a common denominator. The other thing is the
21 businesses I'm working with and the communities that I'm
22 working with want renewable energy. There's different
23 forms of renewable energy, so I'll just say renewable
24 energy.

25 Let me just give you the types of
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1 companies I'm working with so you'll know who wants
2 renewable energy, and some of them you wonder why, but
3 they do. Data centers. If you know what a data center
4 is, it's a bunch of servers in a building, employ about a
5 hundred people, and they want green energy. Google is
6 leading the way with that, and the other are following
7 them. The same with -- this is interesting -- casinos
8 owned by Indian tribes want renewable energy all over the
9 country. I'm working right now in about 12 different
10 states, in the eastern part of the States, that's what's
11 going on.

12 Other things are hydroponic greenhouses;
13 you're going to see in the next few years probably 80 to
14 90 percent of your produce, which is tomatoes, green
15 peppers, cucumbers and zucchinis and berries and stuff
16 will be grown hydroponically. So cheeses and yogurts,
17 they need digesters, and so that was, that's a big new
18 thing coming on just in the last couple years.

19 So I'd like to suggest that we look at
20 our electric rates, and also the things that we do to
21 encourage green and renewable energy in the State of
22 Michigan. Thank you.

23 BILL QUEEN: Thank you for the
24 opportunity. Real quick here, I am going to see if that
25 will work. All right. Never mind. Sorry about that.

1 Okay. My name is Bill Queen, I work here
2 at Northwestern Michigan College, and I also represent
3 the State of Michigan for the Michigan Solar Training
4 Network, which is a midwest sunshine initiative. I'm
5 actually here, though, as a private citizen to talk to
6 you today about solar energy and why I believe that we
7 need to incorporate solar into the State. It is the most
8 popular energy form out there. It's new technology, it
9 is costly; it needs the opportunity to compete against
10 other energy sources.

11 So solar integration will give us peak
12 shaving benefits; it complements other sources by giving
13 it boosts; it's distributed; it provides us the
14 opportunity to get secure localized energy; it provides
15 jobs. I mean how many roofs can solar go on? You look
16 at every roof out there, I drive down the highway and I
17 say, we can employ somebody today by putting up solar
18 panels on the roof. It's well liked by all; it's
19 healthy.

20 The challenge is cost, but the costs are
21 coming down daily. I just talked to a good friend of
22 mine who installs in Pennsylvania, he just installed a
23 solar, one megawatt of solar for \$2.19 installed cost.
24 Okay. So it's coming down, it's coming down rapidly.
25 You recall the PC, you recall all these technologies.

1 I also want to talk a little bit about
2 why solar isn't being integrated right now. We need to
3 strengthen the RPS under Public Act 295 to include a
4 solar carve-out.

5 I'd like to address No. 17: What are
6 other states doing to bring solar and bring renewable
7 energy into and integrate it? And that is using an
8 agency like NYSERDA, the New York State Energy Resource
9 Development Agency, to help enact it, take a little bit
10 of control away from the utility and make it more of an
11 agency approach.

12 Training is also a very key aspect that
13 is neglected in renewable energy, and we need to train
14 more people, because when we have trained individuals out
15 there working with systems, we're going to see
16 innovation, we're going to see cost reduction, and we're
17 going to get a better understanding of how to integrate
18 this and solve the problems that we all have addressed so
19 eloquently today. Thank you.

20 MARCIA CURRAN: This is the hardcore
21 here, this is the hardcore left. Thank you for staying.
22 My name is Marcia Curran. I call myself a citizen
23 stakeholder because -- and I think we all are. We've
24 heard from a lot of citizen stakeholders today. I don't
25 represent a company, I don't represent a particular

1 interest group, and I just think all of us need to be
2 listened to because this, we all have a stake in this,
3 everybody in this country, not just the State, but the
4 country and the planet has a stake in what every one of
5 us does about energy. And I am a big proponent of solar
6 energy.

7 I wanted to tell you that I feel very
8 strongly that we are in a real crisis situation, and we
9 really do have to make some tough choices; but we do have
10 the technology and we have the science to do it, and
11 we're lucky in that sense. So I think we need to look at
12 that and to follow it.

13 We have a renewable energy portfolio in
14 this State, but it's really token, it's such a small, ten
15 percent is so small; I think we really have to push that
16 a lot farther.

17 So not to -- I just want to give you an
18 example of something that my husband and I have done to
19 try to do our part, because we're up there in our years
20 and we have been putting that CO2 up there in the sky for
21 our whole lives. It's time for us to give back. So a
22 couple years ago we put solar panels on our house, and
23 now we have an all-electric vehicle, and we, the way we
24 worked it out, we can charge that vehicle from our solar
25 panels directly because we use net metering, and it

1 really works. It's easy, there's no maintenance, cost is
2 very small in terms of what I have to put in my car. I
3 can -- in one charge of a 220 charger for the car, I can
4 put, in one hour, I can put 20 miles on my battery. So
5 you figure it out, how much that costs in terms of
6 getting where you want to go.

7 And then I put at the bottom here some
8 recommendations and books that I think are important for
9 the panel to know about, and one is Reinventing Fire, by
10 Amory Lovins, which I think does a brilliant job, and
11 he's been working on energy issues from the Rocky
12 Mountain Institute for decades. The other is The Third
13 Industrial Revolution, since we all like industrial
14 revolutions, by Jeremy Rifkin, and I think those have
15 some key suggestions for how we need these needs.

16 And I was speaking to the overall
17 Question 1 and 2, and renewables Questions 8 and 10.
18 Thank you very much.

19 GARY DILLON: Chairman Quackenbush,
20 Director Bakkal, ladies and gentlemen, I'm Gary Dillon,
21 Dillon Energy.

22 For the last 27 years I have been working
23 with companies, well, with homeowners to power plants to
24 buy natural gas. In the course of that time, we've saved
25 tens of millions of dollars. The main thing that we can

1 say about all of these accounts that we've worked on is
2 that they had a choice. There were no caps. They were
3 able to choose their source of supply.

4 The program that we have now has created
5 winners and losers. A couple of examples. I have a heat
6 treater in Warren who is in the queue who is competing
7 against heat treaters that are already taking power
8 through Electric Choice, competing with companies that
9 are in Ohio and Illinois and Indiana that are buying
10 their power at a lower rate. A good example, I have a
11 hospital system that the last three years they've saved
12 over \$2 million, and that has all gone back into
13 diagnostic equipment, so it's had a very positive effect
14 on their operations.

15 Removing the cap, which is truly a
16 barrier to success, would be very positive for all
17 segments of our economy; our recreational, our
18 agricultural, our industrial and our commercial. It will
19 stimulate growth, it will help companies that are already
20 here be more successful, be able to expand; that will
21 create an environment where companies will want to come
22 to Michigan because it will be a happy place for
23 business. Now is the time to remove the cap. There are
24 10,000 plus -- we've heard that earlier -- companies that
25 are waiting in line, just waiting to have the opportunity

1 to compete fairly.

2 And I submit that if you haven't already,
3 that now is the time to act, to send a letter to the
4 Governor Snyder and to your representatives and tell them
5 that we have one minute remaining. No. Tell them that
6 we would like their support to remove the cap. Thank you
7 very much.

8 STEVE BAKKAL: When I call your name,
9 please raise your hand just to see if you're still here,
10 that way we can go through the list. George Paolacci,
11 William Twiddy, Maureen Voss. Maureen? Ric Evans, Randy
12 Parsons, Mickey Smith. Mickey Smith? Hank LaBate.

13 MAUREEN VOSS: So hi. My name is Maureen
14 Voss, I'm a resident of Traverse City. I'm my own
15 building contractor; I've done some work on our house
16 this year, I'm a mother, and I'm in the energy efficiency
17 business as a result of the work that I've done on my own
18 house. We did major upgrades to our energy efficiency in
19 our house, and I'm happy to report that this year during
20 the coldest months of the year, our bills went from over
21 \$300 a month to under \$100 a month just in just this
22 year. So I'd like to -- yeah, thank you. I'd like to
23 thank Commissioner Quackenbush and Director Bakkal, thank
24 you.

25 So I'm answering Question No. 1: What
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1 information do energy policymakers need to consider in
2 order to make good energy decisions?

3 My answer is pretty simple, and I think
4 the main consideration, independent of all the details
5 that we've heard today, is that climate change is
6 happening, it's real, and it's urgent that we do
7 something about it. It is the biggest global threat we
8 face today. We see places all over the world suffering
9 because of our actions in the United States. We're such
10 a contributor to carbon emissions in the atmosphere which
11 affect people all over the world. And so because of
12 that, in Michigan, you know, we can be a leader, we have
13 so much to offer as a State to be behind this global
14 solution.

15 And then also in this country we are --
16 our energy policies, and many of our policies drive
17 international policy, so we can be looked as a great
18 force to change policy. So because of our skilled
19 manufacturing labor base, our strong infrastructure in
20 manufacturing, and our premier research universities, we
21 have so much opportunity to be a global leader. And I
22 think I'll just keep it at that.

23 I have some statistics and reports, this
24 is Question No. 2, about, you know, things that have
25 happened over the world that have been a result of

1 climate change from the arctic sheet melting, it's been
2 reduced by half in the last 30 years. The warm
3 atmosphere is 5 percent wetter than it was 40 years ago,
4 oceans are 30 more, 30 percent more acidic than 30 years
5 ago; these are numbers taken from the IPCC, NASA
6 climatologists James Hanson's work, and work done by Bill
7 McKibben.

8 So anyway, I just urge you guys to really
9 go for energy efficiency and clean energy as we move
10 forward. Thank you.

11 RIC EVANS: All right. The die hards
12 indeed. Thank you all for hanging out, and thank you,
13 Commissioner and Director, for offering this up. It's a
14 great opportunity for all of us. And please pass on to
15 Governor Snyder as well our appreciation for including
16 members of the public in this dialogue. It's certainly
17 important.

18 We know that we are all at a crossroads
19 here, and a lot issues and things, and this certainly has
20 proven today very challenging with lots of issues. I'm
21 sure, like everyone else, everybody's blood pressure has
22 been going up and down like crazy today with various
23 speakers. And hopefully we can all find some common
24 ground.

25 Obviously nobody intends to make dirty
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1 water, dirty air, dirty soil, and so hopefully we can all
2 figure out ways to move forward, and hopefully the
3 administration looks at the long-term impacts of many of
4 these decisions, not take them lightly.

5 My name is Ric Evans. I started a
6 company in 2006, Paradigm Energy Services, doing energy
7 efficiency analysis, worked with hundreds and hundreds of
8 homeowners, businesses, churches, schools, on energy
9 efficiency, and seen some great results from that, and
10 realized that the most cheapest and cleanest energy is
11 the energy we don't use. And I think if nothing else, we
12 need to focus on energy efficiency and improving our
13 energy optimization and enforcing that and expanding
14 that, if nothing else. I think you hear a lot about the
15 lowest hanging fruit, and I still think we're picking
16 stuff off the ground, we haven't even got up to the tree
17 yet, so I think we have lots of opportunities there.

18 I'm also an instructor here at MCE,
19 building science instructor. I trained a lot of the
20 energy auditors in the area, training, like Bill
21 mentioned, is a huge opportunity not only for solar
22 cells, renewable energy cells, but for energy efficiency
23 analysis and whatnot. I got lucky a couple years ago and
24 got also elected to Great Lakes Energy Cooperative board
25 of directors, and so that's offered me a very interesting

1 perspective on things from a boots-on-the-ground kind of
2 guy doing in the, stuff in the field, working on
3 efficiency things, to all of a sudden getting a new, from
4 30,000 feet on a board level of one of the 10 biggest
5 co-ops in the country, and it's been a very, very
6 fascinating look.

7 And hearing everything that everybody has
8 to say here today, we certainly have a lot of challenges
9 and opportunities ahead, and it's going to be a dicey
10 ride the next decade or so. And so I appreciate you
11 guys' patience today, and so that's a tough gig, no
12 doubt.

13 But I primarily just wanted to -- a
14 couple quick things about what we need to consider in
15 order to make good energy decisions, primarily renewable
16 energy, No. 3, cost of new generation; No. 15, siting;
17 and No. 17, the cost and benefits. And one of the things
18 that's not really being considered right now, hasn't been
19 talked about a whole lot today, we're essentially
20 subsidizing our energy costs with our healthcare
21 industry, and I think this is something that needs to be
22 looked at. Solar is one of those things, inefficiency,
23 that are probably the biggest no-brainers.

24 Got all kinds of stats here, but we're
25 going to kind of cut to the chase, that another thing

1 that's not been -- since I have less than a minute --
2 propane, it was kind of mentioned earlier today. Almost
3 nine percent of Michigan consumers are propane, get
4 propane for their heat; it's about three to four times
5 more expensive, has less Btus per gallon as well, and is
6 not at all under any kind of energy optimization program,
7 so I know that that can be challenging to incorporate
8 that, but I think those folks are needing some help in
9 that arena, and if there's a way we can include propane
10 users in the energy optimization program moving forward,
11 I think that would do a lot of our, as was mentioned
12 earlier, some of our less fortunate and very expensive,
13 cost-effective be incorporated, that would be much
14 appreciated. So thank you very much for your time.

15 HANK LaBATE: Hi. I'm Hank LaBate from
16 Long Lake, Traverse City. Thank you, Commissioner and
17 Director, for allowing us to speak.

18 I'd like to speak today on carbon
19 pollution and the uninformed citizen. Just so many of
20 us -- so much of what I hear today is based on carbon
21 pollution, the whole plan is carbon pollution; let's
22 eliminate carbon pollution. But I have found through my
23 research that most people don't understand what that is.
24 I've called some 40 different energy staffers, energy
25 staffers in congress, and none of them could tell me what

1 the concentration with any detail, or come close to the
2 concentration of carbon dioxide in the atmosphere. The
3 NRDC, who was mentioned here today, I searched out the
4 climate scientist in New York, and the young lady after
5 30 seconds said, you know, I really don't know. Now
6 that's a shame. One of our senator's staffers last year
7 told me that carbon dioxide was 40 percent of the
8 atmosphere. I advised her that we were all dead. It's
9 shameful. We have people in the energy industry that
10 make decisions based on no calculations and no knowledge,
11 and believe me, I've gotten ahold of a couple of them
12 here today.

13 And I was disappointed that so many
14 people left, so many of the people that will go and
15 influence the policies that are going to go on; and we
16 don't have any elected officials, and we don't have any
17 of them left to hear us. That's a shame.

18 But there was one individual for the coal
19 plant in Rogers City that really didn't understand how
20 much it would cost to sequester carbon dioxide, and I
21 informed him that the \$96 million that he thought was
22 free money from the federal government would last 45
23 days. You ought to keep that in mind. That's on top of
24 the \$76 that was mentioned per month.

25 And just in the end here, I'd like you to
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1 all consider River Watch, a special report on oil and
2 gas, and this was concerning the AuSable Anglers, and the
3 AuSable Anglers actually went and negotiated with, they
4 negotiated with the actual pipeline company and did dry
5 runs and real runs of emergencies and came up with a
6 plan, a plan on how to protect the environment and the
7 AuSable, the river basin. Thank you.

8 RANDY PARSONS: Good afternoon, all, good
9 afternoon, Commissioners. It's greatly appreciated that
10 you're here, and the ladies that have been working hard
11 this afternoon, also. My name is Randy Parsons, I live
12 here in Traverse City, Michigan.

13 I was born and raised here in Michigan,
14 and started in the Michigan oil and gas industry in 1962
15 when I was 16 years old. I have continued to work in the
16 industry ever since. And my 40-plus years of experience
17 here in Michigan have taught me many lessons about the
18 oil and gas industry. Here's some facts that I have
19 learned.

20 Michigan oil and gas production through
21 all its phases is one of the most heavily regulated
22 industries in the State. These regulations cover
23 drilling, production, and the leasing of State and
24 private minerals. Roughly 35 percent of the costs to
25 drill, complete and lease a well is directly attributed

1 to the regulations that we have here in the State of
2 Michigan.

3 Michigan supplies roughly 20 percent of
4 its natural gas heating; that's leaving 80 percent to be
5 imported. This number could be advanced to over 80
6 percent taking into consideration new technologies that
7 have been proven safe through science and history here in
8 the State of Michigan. Natural gas has proven to be one
9 of the cleanest forms of energy available to the people
10 in Michigan today. It is an abundant -- it is abundant
11 and can be supplied for many years to come at favorable
12 pricing.

13 When we get up in the morning, we want
14 our lights to come on and our houses to be warm. Without
15 natural gas at the present time, this probably would not
16 be possible.

17 Oil production in Michigan has put us as
18 high as, in the past, as number 17 on the list of
19 oil-producing states in the U.S. in total production in
20 one year. We should be proud of the fact that the 99th
21 largest oil producer in the United States was a company
22 from right here in Traverse City, Michigan, in the year
23 2011. This doesn't sound like a very high ranking, or at
24 least it didn't to me, until I took into consideration
25 that there are in excess of 10,000 oil-producing

1 companies in the United States. For a local company to
2 have the distinction, this is a feather in Michigan's cap
3 to prove that local companies take advantage of new
4 technologies and produce energy at a reasonable rate for
5 the State of Michigan. Natural gas storage in Michigan
6 is one of the best places in the world to store natural
7 gas, and we should be taking much more advantage of this.

8 New data released by the EPA on 4/15 of
9 this year shows that -- these are their words -- new data
10 strongly suggests that activists' arguments about the
11 methane gas problem for natural gas development are
12 without merit. They also suggest that methane gas
13 emissions are not increasing at all, they are actually
14 decreasing. Even as wells and greater production -- even
15 as more wells and greater production come on line, the
16 static comes from the EPA's latest greenhouse gas
17 inventory. In 2012, the EPA attempted to argue that
18 methane gas emissions had increased every single year
19 between 1990 and 2009. But revisited data -- revised
20 data issued in 2013 demonstrated precisely the opposite.
21 In fact, a significant and constant decline in total
22 methane emissions -- thank you.

23 8,000 jobs in Michigan attributed to oil
24 and gas, 20,000 residual jobs.

25 UNIDENTIFIED: It would be nice to have a
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1 turn.

2 RANDY PARSONS: I'm the last one. Thank
3 you very much. I appreciate it.

4 JOHN QUACKENBUSH: Okay. I'd like to
5 thank all the speakers today. We've got to close it off,
6 we're right at the end of our appointed time. We
7 literally have two minutes here left in this room. I'd
8 like to apologize for the few that we didn't get to
9 today, but keep in mind, written comments can be
10 submitted through April 25, they'll still be coming. All
11 the slides and presentations from today will be posted on
12 the website, transcripts will be posted today.

13 This is our final public forum out of
14 seven. We started on Valentine's Day, and here we are
15 closing it out on Earth Day.

16 And so, again, please post your written
17 comments this week by April 25.

18 I'd like to close by thanking the
19 Northwestern Michigan College for hosting us in this
20 facility today; I'd like to thank the court reporter for
21 her fine work; and also thank the staff of the Michigan
22 Public Service Commission and the Michigan, you know, the
23 MEDE Energy Office for their fine work hosting us as well
24 for all seven public forums. So thank you very much.

25 (Proceedings concluded at 5:59 p.m.

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1 STATE OF MICHIGAN)
2)
3 COUNTY OF MACOMB)

4 I, Lori Anne Penn, certify that this
5 transcript consisting of 188 pages is a complete, true,
6 and correct record of the proceedings held on Monday,
7 April 22, 2013.

8 I further certify that I am not
9 responsible for any copies of this transcript not made
10 under my direction or control and bearing my original
11 signature.

12 I also certify that I am not a relative
13 or employee of or an attorney for a party; or a relative
14 or employee of an attorney for a party; or financially
15 interested in the action.

16
17 May 4, 2013

18 Lori Anne Penn, CSR-1315
19 Notary Public, Macomb County, Michigan
20 My Commission Expires June 15, 2013
21
22
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25